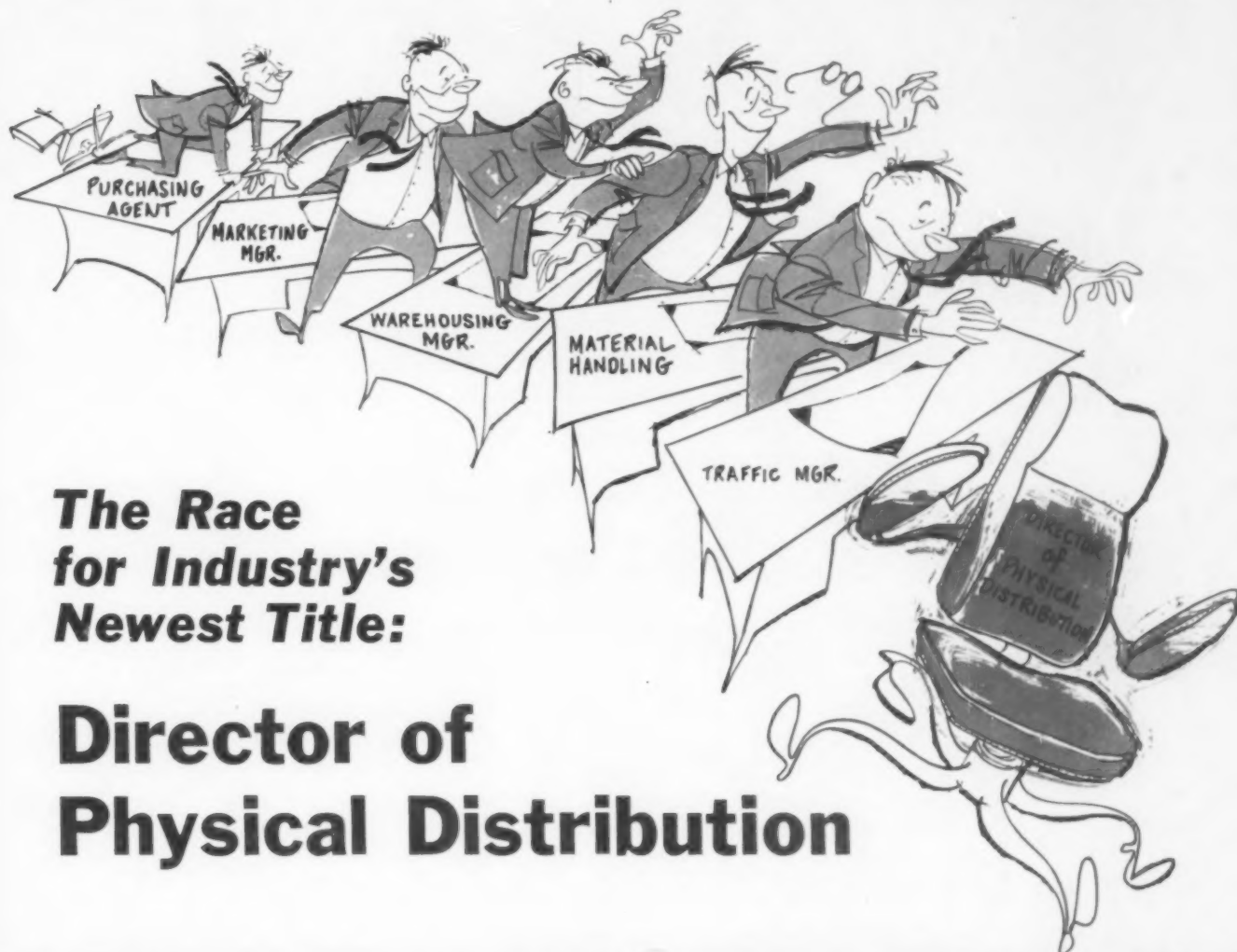


August / September 1961

# Handling & Shipping

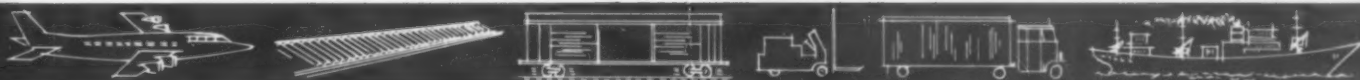
TRANSPORTATION MANAGEMENT • WAREHOUSING • PROTECTIVE PACKAGING • MATERIAL HANDLING • PHYSICAL DISTRIBUTION MANAGEMENT

The 2nd Annual  
Cargo Handling Exposition  
Sept. 6-7-8  
New York City



**The Race  
for Industry's  
Newest Title:**

## **Director of Physical Distribution**



REACHING THE MASS MARKET OF MATERIAL  
HANDLING BUYERS PLUS THE SPECIFYING EXECU-  
TIVE OF TRANSPORTATION AND WAREHOUSING.

### **Also this issue:**

**What you should know about strapping**  
**Pros and cons of common ownership**  
**How modular packaging really works**  
**Piggyback surcharge: To be or not to be**  
**Containerization opens new export markets**



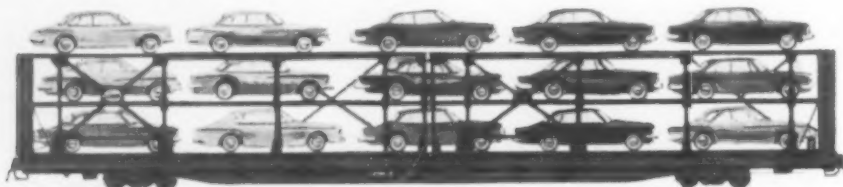
New star of the Central's fleet. Flexi-Van cars carry containers that carry everything—door-to-door—by rail, road or sea.



This versatile workhorse may be fitted with racks, air pillows or movable bulkheads for a wide variety of products.



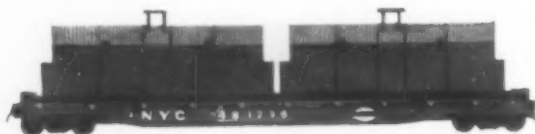
Some covered hopper cars tote food—such as flour, sugar or corn grits. Others carry cargoes such as cement or bauxite.



Fast, low cost transportation for automobiles. New models drive right on—and off—these special rack cars.



Prefabricated houses—complete with plumbing and wiring—ride swiftly and safely on the Central.



Some cars are fitted with skids and hoods to protect coiled sheet steel enroute to auto body makers.



Depressed center cars carry high loads under low bridges. Used for giant transformers and other giraffe-type cargoes.



Meet the Central's heavyweight champion. This rugged specimen can carry a staggering 250 tons!

## From teacups to 250-ton transformers... there's a Central car to carry anything you ship

In the last five years the Central's fleet of "special" cars has expanded more than 150%!

With cars custom made to fit their freight, Central shippers rack up big savings on crating, packing and dunnage as well as loading and unloading time. And so can you!

Shipments move faster on the Central, too. *In the last four years, Central freight train speeds have doubled!* And electronic classification yards have cut car sorting time from more than 24 hours to less than four.

If you don't specify shipment via the New York Central, you may be missing out on important savings. Why not call your local New York Central freight representative for further details?



**ROAD TO THE FUTURE**



**A Sporting Proposition** — We'll bet you a railroader's hat that we can solve any special shipping problem you have. Call, wire or write W. M. Hoffman, V.P. — Freight Sales, New York Central, Dept. P, 466 Lexington Ave., N. Y. 17, MU 9-8000.

Circle 57 on Reader Service Card

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circle the indicated number on the attached Reader Service Card.  
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If not, use this card to give us your complete mailing address plus the old (incorrect) one — — —

H&S is now addressed like this:

It should be changed to this:

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Number employed at this address. \_\_\_\_\_

My job title. \_\_\_\_\_

Name (Please print) \_\_\_\_\_

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Company \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

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Number employed at this address. \_\_\_\_\_

Please send me additional information and literature on items circled below.

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3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243	259	275	291	307	323
4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324
5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325
6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246	262	278	294	310	326
7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247	263	279	295	311	327
8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329
10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330
11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331
12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332
13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253	269	285	301	317	333
14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334
15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335
16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336

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CLEVELAND, OHIO

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GOOD YEAR

# RUGGED!

## New NEOTHANE Tire can tote 2 to 4 times the load 4 times longer

Stack the NEOTHANE up against any conventional tires — under the worst conditions this remarkable Goodyear industrial “solid” will outlast the others as much as 4 times, even when lugging 2 to 4 times the load.

Secret of this unmatched toughness is a new Goodyear polyurethane development that has amazing durability combined with resiliency. Photo above taken through heavy plate glass shows that NEOTHANE tires roll over metal chips, splinters, even broken glass with virtually no gouging or cutting. They won't swell or turn

spongy when driven through water, oil, grease, solvents or acids.

Tough as they are, however, NEOTHANE tires “give” enough to stand up under rough going. And they're harmless to polished floors. If your service is really tough and if your tire dollars aren't buying enough mileage, why not try NEOTHANE? Full details are on tap at your Goodyear Dealer's. Or write Goodyear, Industrial Tire Sales, Akron 16, Ohio. Remember—lots of good things come from Goodyear.

Buy and Specify NEOTHANE Industrial Tires by

# GOOD YEAR

Neothane—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

MORE TONS ARE HAULED ON GOODYEAR TRUCK TIRES THAN ON ANY OTHER KIND

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VOL. 10 No. 4

AUGUST/SEPTEMBER 1961

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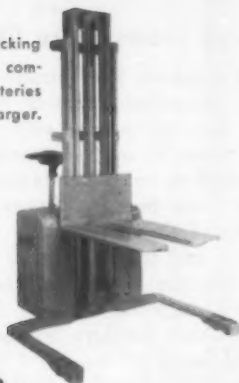
BPA

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# THERE'S AN **LS** "WALKIE" FOR EVERY HANDLING NEED



NEW High-Stacking  
**TIERMASTER**® com-  
plete with Batteries  
and Built-In Charger.



NEW High-Lift Rider  
Type **JACKSTACKER**®  
with Remote Controls  
for Fast Order Picking.



The comprehensive Lewis-Shepard "walkie" line is designed to perform hundreds of cost-saving handling tasks. Its wide range of models gives you the opportunity to select the right "walkie" to do your handling job most effectively. Economical to own and operate, these all-electric walkies are available in low and high lift pallet and platform models compactly designed for narrow aisle close quarter operations — and in general purpose counterbalanced models to which you can add many attachments for specialized handling. Most models can easily handle capacity loads up to 6000 lbs. — all operated with finger tip control.

This complete "walkie" line also includes two revolutionary new models: 1. The self-contained, high-stacking **TIERMASTER** with built-in charger for automatic re-charging of batteries from any 115 Volt AC outlet. 2. The remote control, high-lift **JACKSTACKER** that takes the order picker right to his work.



WRITE TODAY for this **EQUIPMENT SELECTOR** and circulars giving full details on these 8 different "walkies" — the **MOST COMPLETE** "walkie" line on the market today — all built with many outstanding quality features.



LEWIS-SHEPARD "walkies" are equipped with this exclusive control handle — gives you finger tip control of all truck and handling operations.

## **LS LEWIS-SHEPARD®**

Walnut Street — Watertown 72, Mass.

The **MASTER®** Line — The **COMPLETE** Line of Materials Handling Equipment

Circle 42 on Reader Service Card

# DATELINE WASHINGTON

By R. F. SIX, Capital Hill Correspondent

## C&O vs NYC settlement a long way off

Whether the New York Central Railroad or the Chesapeake and Ohio will get the Baltimore and Ohio won't be decided before 1963. In making its decision ICC will face some real dilemmas. NYC contends it will be left out in the competitive cold if C&O gets B&O, and is asking that it get at least part control. C&O says it would wash its hands of the whole deal if it had to share control of B&O with NYC. B&O stockholders, furthermore, have already voted they favor control by C&O.

## CAB moves to avoid rate hassles

At least one transportation regulatory agency—the Civil Aeronautics Board—is looking to the future and moving to avoid problems before they develop. Chairman Alan S. Boyd is seeking views of carriers and shippers on the proposed new transatlantic air freight rates before they become effective (Sept. 1).

Boyd has made it clear to air and motor carriers that he would like them to look into possible through rates and joint rates. CAB is encouraging lower rates which, it feels, are the only meaningful inducement to attract shippers in the volume the airlines need to make new aircraft pay.

There is another curious twist in the air freight picture. Motor carriers and railroads are moving away from complex commodity rates. But here come the airlines along, adopting this very approach even though it is seemingly on its way out among surface carriers.

## Rail bankruptcy move worries truckers

The New Haven Railroad's move to reorganize under the Bankruptcy Act shook many who assumed the government would somehow bail out an ailing carrier. It is raising further concern, however, in a surprising quarter—the motor carrier industry.

Motor carriers are worried now lest the New Haven's example give the railroads their most effective argument yet, the threat of collapse, for pushing pet legislation.

Nothing definite has happened yet. But insiders expect that the railroads will hold the New Haven up to Congress as an example. They will warn that such a fate may befall other eastern roads if diversification is barred.

## Kennedy readies moves to relieve carriers

The Administration is expected to recommend to Congress soon several proposals designed to bolster the common carriers. Informed observers expect action on these carriers sore spots:

1. Restrictions on commodity exemptions.—Chiefly those accorded farm products, which have mushroomed into lucrative backhauls for private carriers.

2. Government rate preference.—President Kennedy

is expected to put a stop to the government's privilege of buying transportation at less than prevailing rates.

3. Crackdown on private carriage.—Not on legitimate operations of companies hauling their own products in their own vehicles, but the illegal or extralegal private carriers who haul for hire.

4. Leasing.—Here too, legitimate lessors are not in danger, just those who use leasing to conduct common carrier operations without authority.

5. Shipper associations.—Again, legitimate ones need not worry. But stiffer treatment is in store for those who haul as common carriers under the guise of cooperatives.

Indications are that Kennedy will sidestep the touchy issue of ratemaking. Motor and water carriers seek ratemaking changes; railroads would oppose them bitterly. This is, in effect, a standoff.

## Piggyback rates face bitter fight

Railroads and freight forwarders are still exulting over their victory in ICC's approval of Plan 3 and 4 piggyback rates, and forwarder volume commodity rates. However, they must still contend with bitter motor carrier opposition in the Federal Courts and, if that fails, a direct appeal to Congress.

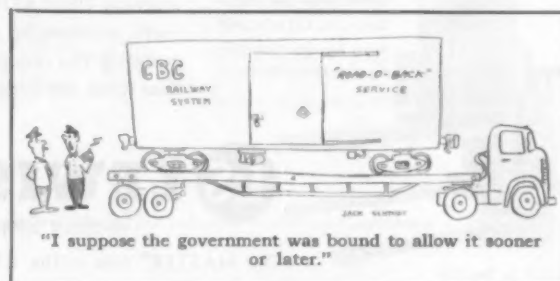
Motor carriers claim the decision has approved a "destructive competitive practice" and has put railroads, indirectly, into the trucking business.

## ICC streamlining looms more likely

The Interstate Commerce Commission is likely to get the procedural streamlining power it wants, but the motor carrier industry is not very happy with the prospect. ICC wants to use 3-man employe boards to make decisions based on recommendations from hearing examiners and joint boards. Appeals would be allowed to Divisions of the Commission (made up of three commissioners) and would then be final.

The aim is to free the Commission of details, to allow more time for important cases. ICC already this year has set up such employe boards to consider routine noncontested cases.

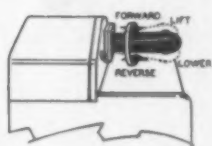
Railroads have quietly advised Congress they favor this setup. The House has already indicated approval, and the Senate is expected to go along.



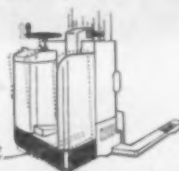
Announcing  
a  
new...

# ....feature-packed **AUTOMATIC®** Transveyor

Here's the narrow aisle truck that sets a new standard for driving ease, serviceability, and lower operating costs. Some of its many features are shown below:



**QUADROL** control handle combines speed and lift controls in one unit for easier driving. One handle controls three speeds forward and reverse plus lifting and lowering of the forks.



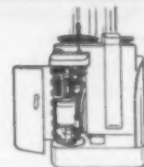
**KNEE ACTION FRAME** assures stability under all conditions. Straddle arm section pivots independently of drive unit section, preventing frame distortion, lack of traction, and instability on uneven floors.



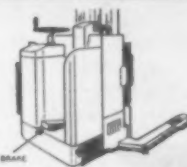
**BATTERY REMOVAL** top or side. Battery may be rolled out from either side. Steering wheel and Quadrol controller swing back to allow overhead removal or servicing.



**CHANGE FROM AUTOMOTIVE** to reverse steering in minutes by changing position of two bolts. Simplifies standardization of steering with rest of fleet.



**ACCESSIBILITY** of parts simplifies servicing. Rear cover swings out to put drive motor, electrical components and brake within easy reach for servicing.



**ELECTRICALLY-INTERLOCKED** controls prevent starting or reversing in any but first speed position. Current is disconnected when hydraulic brake is applied.

**MODEL VST**  
capacities 2000, 3000,  
and 4000 lbs.

**Send for full details NOW!**

- ☐ Please send complete specifications and feature data on new Model VST Transveyor.
- ☐ Please send "NEW DIMENSION" booklet which discusses narrow aisle truck applications and available types.
- ☐ Please have your representative call me.

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



**AUTOMATIC**

**AUTOMATIC TRANSPORTATION COMPANY**  
Division of The Yale and Towne Manufacturing Company  
129 W. 87th Street, Dept. M-1A, Chicago 20, Ill.

FIRST IN IMAGINATION / FIRST WITH REALITY

Circle 6 on Reader Service Card

*National Speedloader Container Handling System*

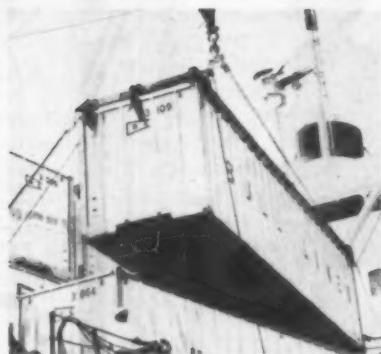
# FLEXIBILITY

*for all forms of surface transportation*



**CONTAINERSHIPS** designed or converted for the fully automatic National Speedloader System cut cargo handling costs up to 70%... cut dock and turnabout time... containers eliminate theft and pilferage. Speedloader system can use ship gantry or shoreside cranes.

**FISHYBACK** service puts bare decks to work earning extra revenue for ship operators. Container handling can be accomplished by Speedloader semi-automatic-manual system using present cranes and booms, or by fully automatic Speedloader system. Speedloader deck securing fittings are used on hatch covers or decks.



**RAILROADS** use Speedloader equipped containers without building special cars since it is only necessary to add securing fittings to existing flatcars or piggyback cars. Containers can be used in conjunction with National railroad car shock-absorbing devices.



**TRUCK FLEETS** use Speedloader truck securing fittings on either flatbed trucks or "frame" type of chassis. Containers — package, liquid, bulk or refrigerated — are fully compatible in interchange service with ships or railroad cars.



**SEMIAUTOMATIC-MANUAL** Speedloader installations enable plants to containerize their materials handling in cases where fully automatic systems are not warranted. Speedloader system can employ much present equipment such as overhead rail cranes, hoists, etc.



**FORKLIFT TRUCKS** and other conventional bottom-lift handling methods can be used with Speedloader equipped containers. While top-lift methods with fully automated systems show greatest handling economies, use of present lifting equipment cuts capital investment.

# COMPATIBILITY

*with all modes of present handling*



**STRADDLE CARRIERS** and similar types of ground handling equipment provide high freight handling capability, mobility and flexibility. Are generally used in installations moving a reasonably large volume such as railroad terminals, warehouses, etc.

The National Speedloader System is service proven for operation with all forms of transportation . . . with all modes of present handling . . . *is the first and only fully engineered, fully compatible system for container handling.*

Fully engineered because all components for electrical, hydraulic or semiautomatic-manual operation function as a coordinated system . . . fully compatible because components for lifting, stacking, securing or lashing permit use on ships, railroad cars, trucks or in manufacturing plants.

*National does not manufacture containers or cranes, but supplies essential Speedloader components to commercial producers of these items. This means ship, railroad or truck operators can purchase these items competitively from any source.*

Today the National Speedloader System is the most widely used method for automatic handling of containers in all fields of transportation. *Automatic handling of containers is the Big Idea whose time has now come — and the National Speedloader System is its Big Name.*

**Transportation Products Division**



International Division,  
Cleveland 6, Ohio  
National Castings Company  
of Canada, Ltd.  
66 Portland Street,  
Toronto 2B, Ontario

**NATIONAL  
CASTINGS  
COMPANY**

Cleveland 6, Ohio

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A-285A

# "Stations stay on the air when we ship via Delta Air Freight"



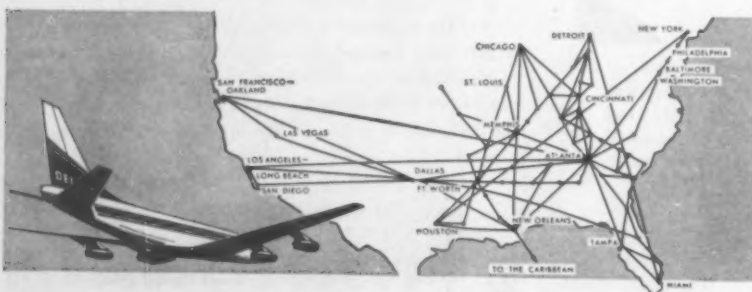
Mr. John Campbell, Sales Traffic Manager, Collins Radio Co., Cedar Rapids, Iowa, states:

"Radio stations can't afford to be without vital parts that keep them on the air. Air time lost is money lost. As supplier of equipment to the broadcast industry, we *must* use a shipping service we can count on to keep these customers stocked, and to make 'panic-button' deliveries in emergencies. That's why we depend on Delta Air Freight.

## Climb over competition with Delta Air Freight

- Enjoy faster capital turnover ■ Access to wider markets
- Tighten up control of inventories ■ Lower insurance costs
- One handler ■ Protection against sudden market declines

DELTA JETS and all other Delta flights carry freight. Call the nearest Delta office, or write Delta Cargo Dept., Airport, Atlanta, Ga.



# DELTA

the air line with  
the **BIG JETS**

Circle 22 on Reader Service Card

## PEOPLE IN THE NEWS

Raymond E. Bisha has been appointed assistant to the president, Louisville & Nashville Railroad. Lisle W. Adkins was elected vice president of accounting and taxation.

W. O. Chamberlin is the new vice president of marketing, Brooks & Perkins, Inc.

Arnold L. Haupt becomes Spector Freight System, Inc.'s district manager for northern terminals.

Francis J. Schlatter has been appointed sales manager of Nutting Truck and Caster Co., succeeding Arnold C. Stockey.

H. L. Hembree has been named director of finance, and Dan Roebuck assistant general traffic manager, for Arkansas Best Freight System, Inc.

James Mason has joined Lite-Line Metal Industries Div., Copperloy Corp., as plant superintendent.

George J. Weenen has been recalled from the Orient by Air Express International Corp. to become its director of special accounts.

W. W. Gould is new nickel-iron battery market manager of Exide Industrial Marketing Division, The Electric Storage Battery Co.

Philip L. Anderson, treasurer of Associated Truck Lines, Inc., has been elected president of The American Trucking Association's National Accounting and Finance Council.

Harry Taylor is auditor of the new California Management Div., Ringsby Truck Lines, Inc. William A. Almeida is operations manager, James C. Egan director of personnel, and C. A. Millen western division traffic and sales manager.

Samuel D. Richards has been elected secretary of Clark Equipment Co. He succeeds J. F. Bechtel, appointed general manager of Clark Equipment International, C. A.



Container manufactured by Owens-Illinois

*For ton-and-a-half oil heaters—*

## Giant Bostitch-stapled carton slashes packing costs 50%

Texsteam Corporation, Houston, Texas, used to ship 3000-pound oil heaters in wood crates. Each crate was built around a heater and was the size of a small room... seven feet long, seven feet high and three feet wide. Crates were costly to make and to ship. They were heavy, time-consuming to build and hard to handle. Here's how Bostitch helped.

An unusual—and unusually large—

corrugated container proved to be ideal. It's a sleeve with a Bostitch-stapled seam. A cap, stapled in place, forms the top. The burner is bolted on a wood pallet, then sleeve and cap go over the burner. A heater can be packed in a fraction of the time.

Texsteam reports savings of 50% for the new container over the old. The new carton weighs less and has cut freight costs substantially. Shipments

have been completely damage-free.

Texsteam gained many advantages and worthwhile savings in the change to Bostitch-stapled containers. Many companies do. If you would like to know how a change might benefit you, talk to a Bostitch Economy man. To call him, look under "Bostitch" in your phone book. Or write us direct. See how much you can save when you use Bostitch in your shipping room.

**Fasten it better and faster with**

\*\*\*\*\*  
 \* **With every Bostitch machine you get...** \*  
 \* the right combination for your needs from 800 staplers \*  
 \* and over 200 staples... nation-wide parts, service and \*  
 \* technical aid backed by the industry's most modern factory... assurance that Bostitch products will operate to \*  
 \* your complete satisfaction. \*  
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# new LYN AIRVAN

ALUMINUM  
DELIVERY BODY

aeronautically-designed  
by Dayton T. Brown



## PAYS FOR ITSELF AT RATE OF

**1½¢ PER MILE** Fact-proven: LYN AIRVAN can cut costs 15%, pay for itself with 3-year savings! How? Aeronautically-designed lightweight construction. It carries more payload; uses less fuel; eliminates body rusting and rotting; reduces wear on tires, engine, clutch, brakes and frame. Look at these unmatched exclusive features of the LYN AIRVAN 126:

- 394 cu. ft. cargo space
- 1½ ton payload capacity
- 68 sq. ft. of load area
- 6 ft. inside headroom
- 12 sq. ft. up-front desk space
- 2 cu. ft. storage compartment
- one-piece pre-formed aluminum roof
- one-piece ¾" aluminum floor
- one-piece heat-treated corner panels
- pre-formed rub rails & "muscle bands"
- separate quick-change side panels
- wide-opening insulated engine compartment

Compare it with any body! You'll find LYN AIRVAN the lightest, best-built, fastest-delivered, easiest-repaired body built. Each one is mounted and equipped for fast on-schedule delivery — serviced nationally by LYN dealers. Also available in 8 and 12 ft. models, all 72" high, 78" wide. Wouldn't it pay you to standardize on LYN AIRVAN? Contact us.



Dayton T. Brown Airvan Division  
**LYNCOACH & TRUCK CO., INC.**

Oneonta, New York / Troy, Alabama / Copiague, Long Island

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The tonnage Baker Trucks move every day would equal the weight of the steel frames of 32 Empire State Buildings.

## TODAY... BAKER INDUSTRIAL TRUCKS WILL MOVE 1,920,000 TONS OF MATERIALS

In fact, Baker equipment has been moving materials for more than a century. Some Baker trucks bought as long as 50 years ago are still giving faithful service.

To this tradition of long service and dependable workmanship, Baker engineers have added such features as: parts interchangeability; simplified mountings; easy

accessibility for low-cost maintenance; plus a wide, modern line of gas, LP gas, and electric trucks for almost every industrial application.

Whether you buy or lease, Baker trucks can cut your materials handling costs. Let your Baker dealer show you how. Or write for details.

Write also for free illustrated manual on fork truck safety-operating hints. Get one for each of your drivers. Baker Industrial Trucks, 8011 Baker Ave., Cleveland 2, Ohio.

Circle 10 on Reader Service Card

A DIVISION OF OTIS ELEVATOR COMPANY

**BAKER**  
BAKER INDUSTRIAL TRUCKS • CLEVELAND 2, OHIO

## Which National Lease plan fits your trucking needs?



### • THE CHANGE-OVER PLAN

We take over all of your present truck and maintenance problems, help you reorganize your truck facilities and personnel. We supply you with new vehicles, engineered and painted to your exact requirements, or will buy and recondition your present fleet.

### • THE ADD-A-TRUCK PLAN

As your business expands, don't use vital capital for more trucks, *lease* new ones as needed.

### • THE TRUCK RETIREMENT PLAN

As each truck in your fleet needs replacement, instead of buying a new one, *lease* it. In a few years all your vehicles are leased.

### • THE PILOT PLAN

Instead of switching from ownership to leasing in all locations, select one location (or division) for a "pilot" operation using full-service leased trucks, comparing costs and headaches with trucks which you still own and maintain.

Lease a new CHEVROLET or other fine truck.  
No investment, no upkeep, no headaches.

**LEASE FOR PROFIT—NATIONALEASE** full-service truckleasing supplies everything but the driver. Licensed, insured trucks, engineered and painted to your needs, garaged and expertly maintained. ONE invoice, NO worries. Devote your full time, ALL your capital to your own business!

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NTLS



National know-how, local controls—write for literature.

**NATIONAL TRUCK  
LEASING SYSTEM**

Serving Principal Cities  
in the U.S. and Canada

23 E. Jackson Blvd., Suite S-8, Chicago, Ill.

## DEVELOPMENTS TO WATCH in traffic management

### Rails blast Senate Bill 1197

Senate Bill 1197 seeks to add new standards to the ICC's ruling process on carrier rate proposals. Heading the list of new standards is the directive that the ICC judge rail rate reductions in relation to existing charges of competing truck and water carriers. Recently the Board of Directors of the AAR said that its (S.1197) "obvious intent is to tie railroads up in so many knots that truckers and waterway operators can be free to raid rail traffic at will and rig prices at high levels without fear of competitive kickback." The real story behind the controversy over S.1197, railroads claim, is their successful move to recapture the business of shipping new automobiles. Today railroads carry about 10% of all new autos shipped, but this figure is rising. By the end of the year Studebaker plans to ship 70%, American Motors 50%, Chrysler 40%, and Ford 35% by rail. The big reason for the railroads' gain, they contend, is that they can now ship autos considerably cheaper than can trucks and still make a profit. Rail officials charge that S.1197 has become the special target of a massive pressure move by Jimmy Hoffa's Teamsters directed at Congress, the ICC and major industrial shippers. Joining forces with truckers and barge lines, they say, Hoffa is seeking enactment of S.1197 to raise new barriers in the way of rail rate reductions to meet truck and barge line competition.

### Education to be convention theme in Dallas

Transportation fraternity Delta Nu Alpha's 21st annual convention will be at the Sheraton-Dallas hotel, Dallas, October 20-22. Principals will be ICC Chairman Everett Hutchinson, transportation people from several foreign countries, and past winners of the Transportation Man of the Year Award. An educational panel will be headed by past award winners and six other transportation representatives.

### L. A. bank starts freight plan eliminating checks

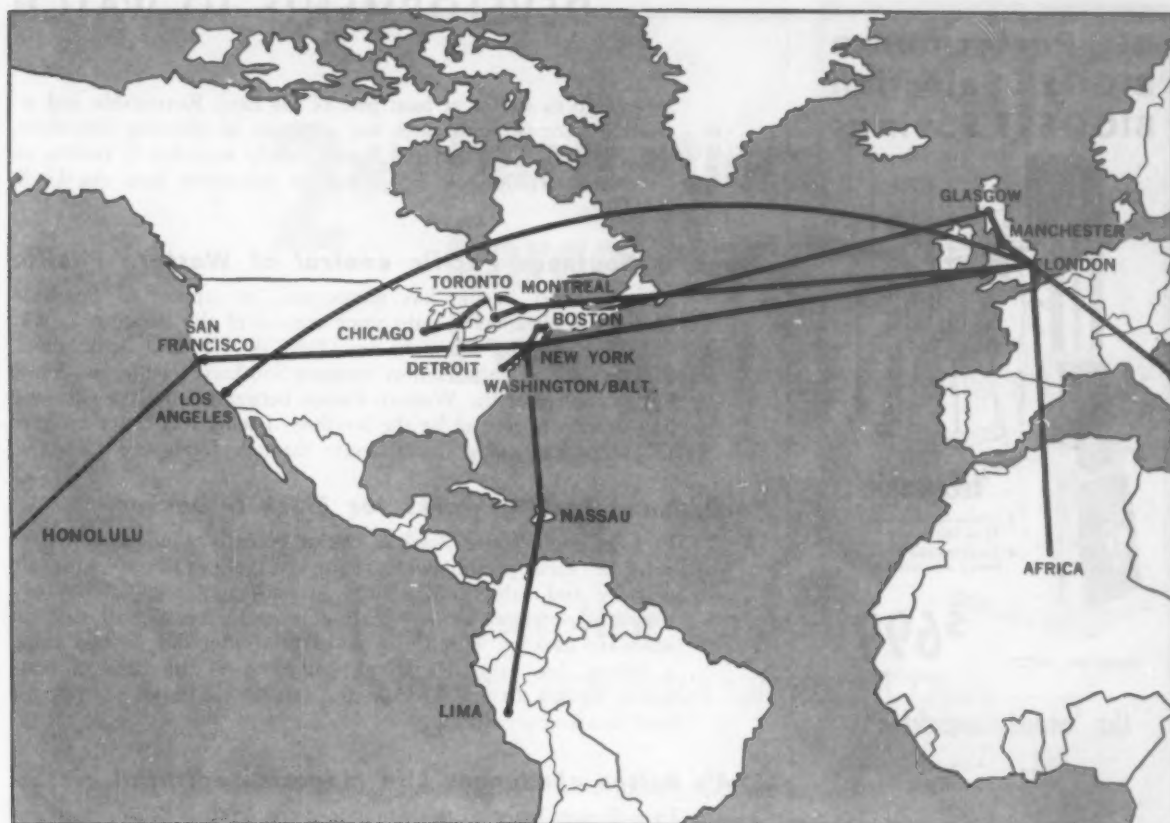
The Security First National Bank of Los Angeles has started a freight draft plan to provide a banking service that will speed and simplify payment for shippers, receivers, and carriers. The plan has been endorsed by Transport Clearings of L.A., an industry-owned clearing house for freight bills. Under the plan, a shipper or receiver can pay freight bills without writing a check. Here's how it works—a shipper or receiver authorizes Security to pay envelope sight drafts for freight charges drawn by carriers or their agents with which the company transacts business. Among other advantages, accounting time is reduced, multiple check writing, postage, and mailing are eliminated.

### CAB head urges air-surface carriers get together

Civil Aeronautics Board chairman Alan S. Boyd commented recently on the lack of through service and joint rates between air carriers and surface carriers. "I have the feeling," said Boyd, "that carrier managements have not exhausted many tariff possibilities which will attract new business at a volume calculated to offset proper tariff reductions. One way to do it is to attract sur-

Continued on page 14

Circle 56 on Reader Service Card



## IT'S EASY TO SHIP BY BOAC

1. New transatlantic cargo rates\*
2. More direct service to Britain

1. Starting the first of September, your total distribution costs can be reduced to a significant degree. The new transatlantic air cargo rate structures bring economies to volume shippers by air that are very favorable.

2. What's more, BOAC offers *much more direct* service—707 jets from 10 North American cities to and from Manchester, Glasgow and London, and frequent connections to Europe, Africa and Asia. Also frequent transatlantic DC 7F Freighter Service.

For precision air-cargo handling, call your Freight Forwarder, BOAC Cargo Agent or *any* BOAC office.

\*Effective Sept. 1, 1961, subject to Government approval.

ALL OVER THE WORLD

# B·O·A·C

TAKES GOOD CARE OF YOUR CARGO



BRITISH OVERSEAS AIRWAYS CORPORATION  
In Association with BEA, Qantas, TCA and Air India

To: Cargo Sales Manager  
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530 Fifth Ave., New York 36, N.Y.

Send me full details of new Atlantic Freight rates and services.

NAME \_\_\_\_\_ TITLE \_\_\_\_\_

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**BIG Performance  
BIGGER Selection  
BIGGEST Savings**



**the "telescopic"**

- Lifting heights from 72 to 160 inches
- Synchronized 12-volt heavy duty system

**\$699**  
complete

Model No. 9972T




**the "counterweighter"**

- Featuring direct pallet approach
- Telescopic, with lifting heights from 54 to 110 inches

**\$845<sup>50</sup>**  
complete

Model No. 200-54



**the "yardmaster"**

- Telescopic, for entry-exit ease
- Lifting heights from 64-160 inches

**\$875**  
complete

Model No. 2964

write for quotations for special applications

On Model 2964: Drum Attachment not included.  
80 other proven models

**BIG JOE**  
MANUFACTURING COMPANY

Sarrington Road  
Wisconsin Dells, Wisconsin

Circle 12 on Reader Service Card

## DEVELOPMENTS TO WATCH

face cargo to air for at least part of the haul. Reasonable and attractive joint through rates are a means of effecting this objective." He also said that the Board shortly expected to receive an extensive joint through rate filing for shipments from the U.S. to Alaska.

### Supports Southern Pacific control of Western Pacific

The Missouri Pacific has announced its support of Southern Pacific's application to gain stock control of the Western Pacific. Others supporting the move are D&RGW, UP, and Rock Island. MoPac said: In the contest between Southern Pacific and Santa Fe for control of the Western Pacific between Salt Lake City and San Francisco, control by the Southern Pacific will better preserve the central transcontinental route through Utah and Colorado.

### Preshipment testing works for Black & Decker

Package engineers of Black & Decker recently announced the results of their preshipment testing program. Results are delivery and substantial savings in packaging costs. They say that the packaged product testing program has proved that an adequate package with full product protection can be had using a lighter, less expensive board, and that on the basis of cost saving figures for one package, the testing equipment can pay for itself in about a year.

### ATA's Belson challenges Life Magazine editorial

In a 7-page letter to the editor-in-chief, Walter Belson, assistant to the president of the American Trucking Associations, recently criticized Life Magazine for its June 9 editorial, "Danger to Railroads." Belson charged the editorial was "false and defamatory" and "contains false statements continuously made by railroad propagandists." He called on the magazine to correct the error and repair the damage the editorial created.

### Southern's grain reduction stirs row

Southern Railway System has filed reduced rates with ICC for bulk shipments of grain, effective August 10. Water carrier millers, the Tennessee Valley Authority, and several local boards of trade oppose the reduction, and have flooded ICC with protests and suspension requests. The new rates are for shipments between crossings on the Ohio and Mississippi Rivers, and principal rail heads on the Southern. They are made possible, the railroad claims, by volume movements in new aluminum hopper cars. Water carriers oppose on grounds that the rates are selective and discriminatory, designed to put them out of business. TVA claims the reductions would disrupt efforts to create a common carrier industry there. Millers and local boards of trade protest that the reductions don't apply to flour and other products shipped by firms on the Southern. The reductions have been endorsed by the Southern Governors' Conference and the Southern Association of Railroad & Utility Commissioners.

### Baltimore hosts Packaging Show Nov. 13 and 14

The Society of Packaging and Handling Engineers will hold its 7th Annual Industrial Packaging and Handling Show at Baltimore's 5th Regiment Armory November 13 and 14. The show will include SPHE's National Competition and Awards, and Short Course on Industrial Packaging. For more information write to SPHE at 14 E. Jackson Blvd., Chicago 4, Ill.

# 2<sup>nd</sup> International Cargo Handling Exposition

September  
6, 7, 8, 1961

**Pier Nine, North River, New York City**

*featuring COORDINATED TRANSPORTATION*

Here is the perfect opportunity for traffic managers, purchasing agents, freight forwarders and business men to see at first hand the very latest developments in the field of materials handling and distribution. There will be particular emphasis on containerization as applied to foreign trade.

If you are concerned in any way by the way goods are moved you will not want to miss this important Cargo Handling Exposition.

The Exposition will be conducted concurrently with the International Cargo Handling Coordination Association (ICHCA) General Assembly and Technical Conference at the Waldorf Astoria.



## **KINGS POINT CARGO HANDLING EXPOSITION, INC.**

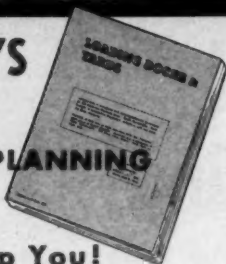
135 East 39th Street, New York 16, N. Y.

PHONE: LEXINGTON 2-9921

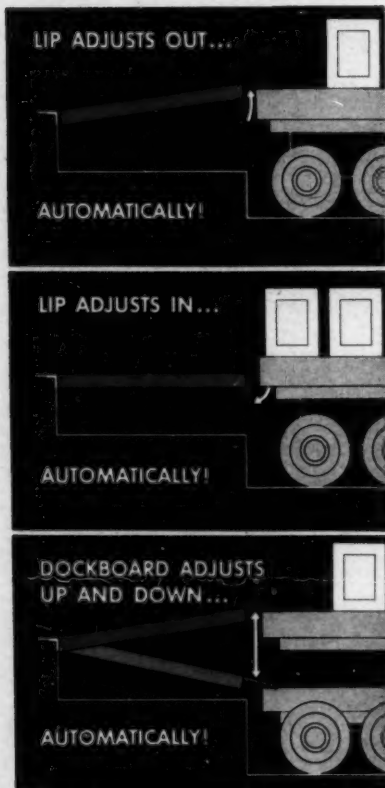
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## PLANNING A TRUCK DOCK?

### KELLEY'S FREE DOCK PLANNING KIT Can Help You!



Whether you're at the blueprint or "just thinking" stage, you need Kelley's brand new reference booklet on loading dock layout. It provides important data on driveway, aisle, canopy and door requirements, dock heights, current truck-trailer dimension restrictions, etc. Also, includes complete specs on industry's No. 1 Adjustable Dockboard—Kelley's ADJUST-A-LIP. Make yours a modern, efficient and safe dock operation. Act now! Mail coupon today!



### FREE Get the FACTS! Send for details TODAY!

- ☐ FREE KIT — "How to Plan a Profitable Truck Dock Operation." Get Booklets on Dock Safety, Modernizing, Levelation Data, Dock Designs, etc.
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Tear out and attach this coupon to your letterhead. Sign your name and mail to:



Circle 37 on Reader Service Card

## NEW SHIPPER SERVICES

### Rail cars also ride highways

Combination vehicles with dual sets of retractable wheels are equally at home on rails or roads. One set has steel-flanged wheels for rails, the other has rubber-tired wheels for hauling as a tractor trailer. Twelve of these vehicles are being added momentarily to midwestern mail service.—Chesapeake and Ohio Railway.

Circle 151 on Reader Service Card

### Multiple parcel service to NY

Save time and money shipping small parcels to Greater New York from New Jersey, Pennsylvania, and Delaware. Combine any number of parcels up to 150 lbs under one bill of lading.—Hermann Forwarding Co.

Circle 152 on Reader Service Card

### Cube rates aimed at small shipment bills

New basis of computing commodity shipment charges discards the conventional weight-distance method, and is based on a combination of number of pieces and cubic volume of the shipment. Fewer, heavier packages mean greater savings. Now in effect for some commodities, under study for others.—REA Express.

Circle 153 on Reader Service Card

### Cargo capsules cut handling costs

Jet Paak cargo capsules that fit in belly of 707 jets enable airline to load or unload 10 tons of cargo in 20 minutes, saving shippers material handling costs. They reduce packaging costs too by reducing packaging needs. Shippers may fill the capsules in their plant, then truck them to airport for shipment.—Pan American World Airways.

Circle 154 on Reader Service Card

### Expands service for steel, special commodities

Streamlined service is now available to shippers of steel and special commodities as a result of three carriers. New terminals in Waukegan and Sterling, Ill. and Cleveland will speed shipments.—Spector Freight System, Inc.

Circle 155 on Reader Service Card

### Improved LTL in Chicago

A 40-door terminal designed for fast freight handling is now operating in Chicago's west side. Several daily timed LTL movements leave daily for Kansas City, Wichita, and Topeka.—Arkansas-Best Freight System, Inc.

Circle 156 on Reader Service Card

### Faster air service to S. America

A new flight from New York, Washington, and Miami leaves regularly for Panama, Peru, Bolivia, Paraguay, and Argentina. Other additions add to service to Latin countries from points in southwestern U. S.—Braniff International Airways.

Circle 157 on Reader Service Card

### Faster piggyback service

New piggyback terminals at Jersey City and Chicago mean expedited piggyback service between New York and the East and Chicago and the West. These terminals are jointly owned by several companies who team together to improve piggybacking.—TOFC Inc.

Circle 158 on Reader Service Card

### Where's that shipment?

Electronic computers answer that question in less than a minute for western rail shippers. New traffic service information center keeps shippers informed of deliveries any time, day or night.—Denver & Rio Grande Western Railroad.

Circle 159 on Reader Service Card

### LCL incentive rates

New incentive rates are now effective for less-than-carload freight in Ontario and Quebec. The lower rates will apply to all classes of freight except those not suitable for pickup and delivery.—Canadian National Railways.

Circle 160 on Reader Service Card

### Piggyback reefer leasing

Shippers and carriers may now lease radically new all-purpose refrigerated trailers using non-mechanical liquid nitrogen. Controlled temperatures possible as low as -20 degrees F. Also available in demountable bodies for containerization. Leased on per diem bases or standard lease arrangement.—REA Leasing Corp.

Circle 162 on Reader Service Card

### Palletized preloading system speeds air cargo

DC7CF cargo clippers now have AirPal palletized preloading system, for accelerating civil and military air cargo. Cargo is assembled according to destination, loaded, and secured to special pallets as it arrives at the airport. Each pallet holds up to 6,700 lbs; a DC7 holds seven of them or over 18 tons. Loading is fast, inexpensive. Shippers may preload at their plant.—Pan American World Airways.

Circle 163 on Reader Service Card

### NY office speeds transcontinental service

A New York City office just opened is planned to provide improved service for transcontinental motor freight shippers. Located in mid-town Manhattan.—Rising Truck Lines.

Circle 164 on Reader Service Card

### How air freight cuts costs

Overnight delivery between major terminals is possible with flying freighters. All cargo Super Constellations take even the heaviest loads, palletized or unpalletized. Mechanized handling speeds service, reduces costs. Door-to-door pickup and delivery available.—Eastern Airlines.

Circle 165 on Reader Service Card

## NEWEST PLUM UP FOR GRABS



## The race for industry's newest title:

## DIRECTOR OF PHYSICAL DISTRIBUTION

By ALBERT M. JOSEPH, Editor

**THE RACE IS DEADLY SERIOUS.** To the companies competing it's a struggle for markets, profits, even survival. To the men competing for the title in a company it means power, prestige, promotion. Yet in this race, while some companies are already crossing the finishing line, most haven't even heard the gun go off.

### What it's all about

Stripped of its pompous business jargon, physical distribution simply means centralized control of all factors involved in moving the goods you need to move to run your business. It usually includes transportation, material handling, warehousing, inventory control, and packaging. Because incoming flow is as important as outgoing, it may also include purchasing. And because

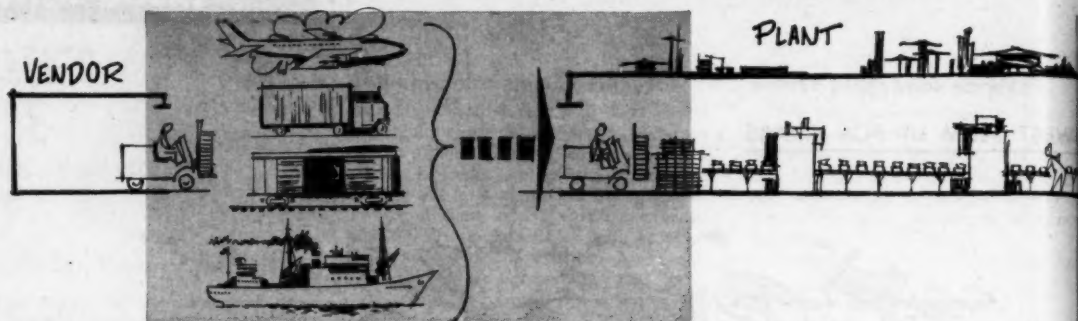
outgoing flow ultimately becomes a matter of customer service, physical distribution is also closely tied in with marketing.

Physical distribution, then, is a function of both production and marketing. Its hero may have many titles—director of physical distribution, physical distribution manager, manager of materials flow, or several others on the organization chart. But whatever you call him he's going to be a powerful executive. He will—in some companies already *does*—bring about savings most firms never realized were possible.

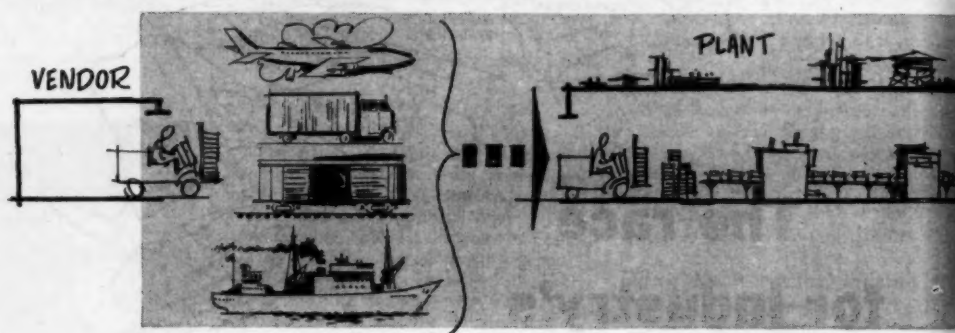
### How much can physical distribution save you?

When you buy a pack of cigarettes or a new machine for your plant, chances are you're paying more for the movement of the merchandise (and the raw materials that went into it) than for the merchandise itself. If you're on the other end, marketing the cigarettes or machinery, you're faced with the same harassing statistic: *It costs more to distribute many products than to make them; distribution consumes a staggering per-*

## This is physical distribution at work in the big plant



## Physical distribution consolidated in the medium size plant



centage of the United States gross national product.

A company whose name is a household word (but who requested anonymity) revealed to H&S editors that it spends about \$1/3 million a day to move raw materials into and finished products out of its plants. If it could find a way to reduce this bill one-third it could double the corporation's profits! While this goal is unlikely, even a small fraction of it would make a monumental difference to most companies. A physical distribution manager may be able to do it.

### Systems analysis is the key

The team approach has serious weaknesses. You may already have competent men in charge of traffic, material handling, warehousing, packaging, purchasing—all the individual functions that make up physical distribution. But even if they work together as a team, even if they meet regularly to make sure their departments dovetail, there are some inherent weaknesses:

First of all, none of them knows all the operations intimately. Each may be an expert in his own department, but they're all too busy running their departments as efficiently as possible to be able to invest the time it takes to study the overall picture in detail. And that is as it should be.

Secondly, all of these department heads have veto power. Even though they're conscientiously working for the good of the company, each has a proprietary

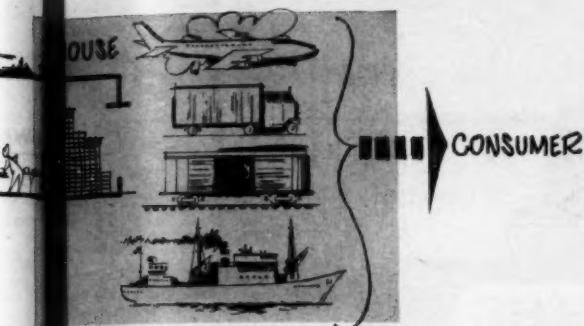
interest in his own department. Loyalty seldom overcomes human nature, and few executives are likely to vote their department out of existence or into a less powerful existence. But major changes usually require some shift in the balance of authority. With each department head holding a veto over such a shift, changes are often delayed—even tabled.

One man in charge of all these departments, however, can see the full picture. One man whose responsibility it is to know the inner workings of every phase of the movement of goods can find savings that nobody has been able to see before. And he is high enough on the organization chart that he can cut through interdepartmental rivalries, should they exist, and keep plans heading in the direction they ought to head for the good of the company.

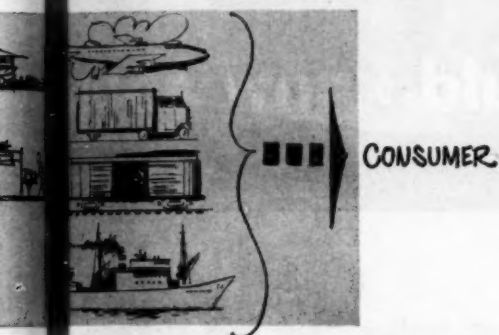
### Examples of streamlining

Here's a hypothetical case in point. Suppose a company (large or small, consumer or industrial—it makes little difference) markets a product nationally and distributes that product through regional warehouses. Let us say, as is usually the case, that these warehouses were established years ago and they were carefully located to spot them closest to the markets. The company stocks these warehouses from the main plant, as most do shipping by rail and/or truck.

Now let us suppose that this company, demonstrating



production material handling not included



production material handling often included

above average enlightenment, establishes a physical distribution manager.

One of the first things the new PDM notices, in our example, is that the company's warehousing needs have changed. Markets are no longer the same, and what once served adequately is now less than adequate. Searching for alternatives, he finds that there are many. The one chosen in our example is extreme, but increasingly common of late: close down the warehouses and ship direct from plant to customer. To speed customer service, ship by air instead of rail or truck.<sup>1</sup> What our PDM loses through more expensive freight charges, in this case, he more than makes up in warehouse savings. Furthermore he frees the capital formerly tied up in warehouse inventory. (See "Air Freight and the American Businessman," H&S, April/May, 1961, p. 17.)

But suppose there had been no PDM. A systems analysis approach would have been unlikely in the first place. Even if someone had come up with the idea to close down branch warehouses, what would have been the warehouse manager's reaction to a proposal to ax his department? Or how would the traffic manager receive the suggestion to do away with the economies he has spent his career to build? They would probably

<sup>1</sup>This does not imply that a good system must eliminate warehouses; many companies are, in fact, doing just the opposite with splendid results. Nor does it imply that air cargo is preferred over other modes of transportation.

## Physical distribution

management includes transportation, material handling, inventory control, warehousing, and protective packaging.

find many excellent reasons why the whole plan should be dropped or, at least, modified right out the window. But the PDM has the authority to ask for and get these changes if the company will benefit.

## Coordination long overlooked

Behind it all lies this truth: You cannot separate transportation, material handling, warehousing, inventory control, and packaging from each other. Each overlaps into the others and dictates, in part, how the others shall perform. (Indeed, it is as a meeting ground for these overlapping fields that the new concept of containerization has been accepted so rapidly.)

For example, a company manufacturing delicate electronic instruments for the armed forces may design its material handling, warehousing, and transportation systems around a packaging system required by federal specifications. Another firm without this restriction may find top savings come through palletized loads, and will change its methods of warehousing, transportation, and packaging to accommodate this change in material handling. Still another may feel its best bet is to ship in custom-made rail cars, and will change all aspects of its physical distribution accordingly. And a fourth may modify its material handling, transportation, and packaging to improve its warehousing system.

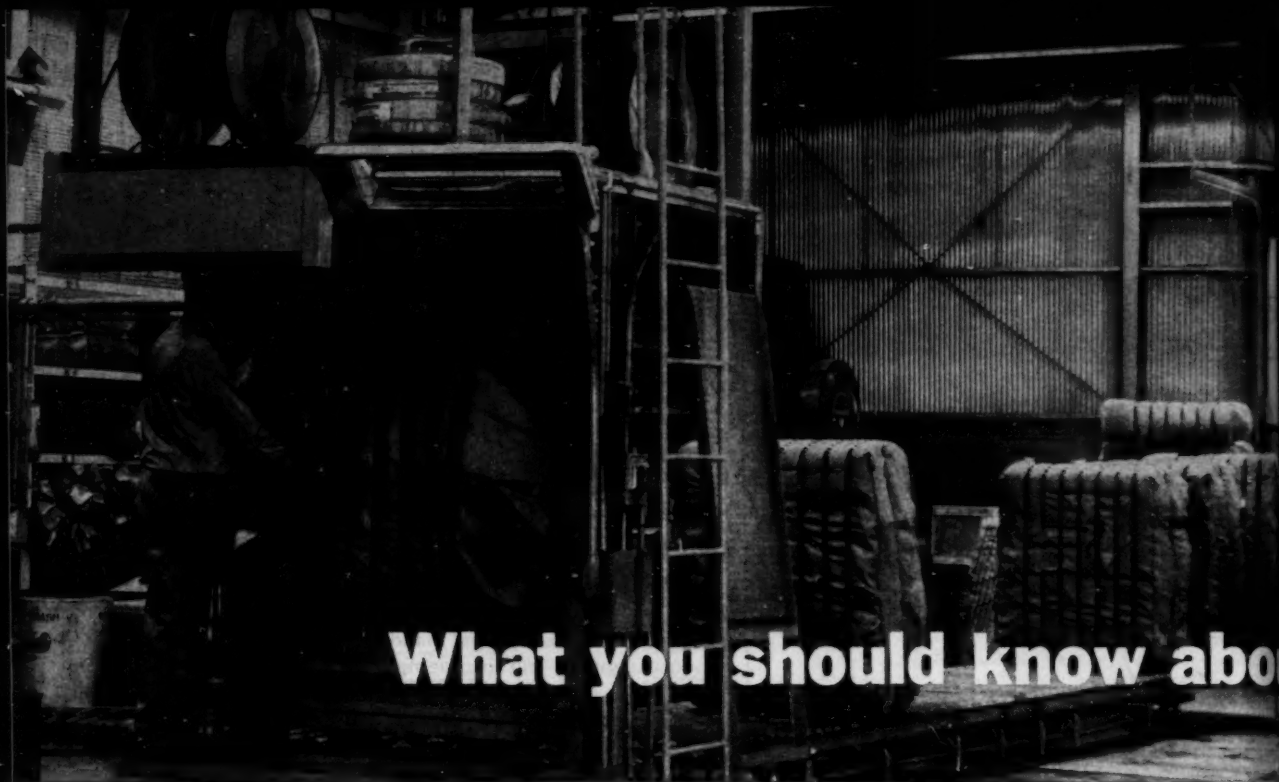
In each case a change in one phase of physical distribution dictated changes in all others. It almost always happens this way. But somebody, whether the president, physical distribution manager, or traffic manager, must be in a position to evaluate which changes offer the greatest advantages to the company, and which contain pitfalls.

## Who should be the PDM?

Any number of people are in the race. Each one has special arguments, carefully reasoned, why he is best qualified for the job. And in each case the man's professional society has done a high-pressure selling job to boost its members' status.

Traffic managers claim that, because transportation usually accounts for the biggest share of the dollars spent on physical distribution, the system should be built around traffic. With equal confidence, material handling executives explain earnestly and patiently that no one's responsibilities extend across the board as widely as theirs, thus they are the logical candidates. So it goes, too, with purchasing agents, packaging engineers, and warehouse managers.

Smart companies are wont to choose the best man regardless of his present position. ♦



## What you should know about TR

**ASK AN EXPERT** what he thinks are the few most important kinds of material handling equipment, and he's almost sure to include strapping on his list. While it doesn't move anything, not much would move without it either. Yet an alarming number of companies turn their backs on many of its benefits. They take it so for granted that they fail to look for new ways to use it. Major uses for strapping are:

- **Palletizing and unitizing.**<sup>1</sup> It's easier and cheaper to handle a few large loads than several small ones. Several small packages on a pallet, however, often create a wobbly load unless held together with straps. Strapping makes them a solid load, easy to handle without falling even when stacked several high. And with straps you can put heavy machinery or other hard-to-handle loads on pallets for easier handling.

- **Cargo tiedown.** Railroads and truck lines have developed special tiedown systems for protecting loads in transit. Strapping cuts down the amount of dunnage it takes to protect loads. Without it damage claims would be sky high. If you operate your own trucks and are searching for a way to stabilize cargo, try strapping.

- **Package closure.** You can close almost any container quickly and effectively with strapping. It's strong and easy to apply. And though the customer has no trouble opening the packages, it makes them almost pilferproof because thieves can't remove the bands without leaving telltale evidence of tampering. Also, straps around wood or fibre boxes can boost their strength several times, help them withstand rough handling they otherwise couldn't take. Thus you can save money by using thinner boxes.

<sup>1</sup>Material handling purists consider any load unitized if it is designed to be handled as a single load. It may or may not be palletized.

- **Baling and bundling.** Waste paper, scrap metal, textiles, etc. in their loose form take up expensive space, are expensive to handle. Compressing them into bales then tying with straps reduces their volume, cuts storage and shipping costs. Astute plant managers often band together such loads as pipe, lumber, etc. Not only do the straps protect the loads but they make them easier to handle, simplify inventory, and reduce the number of shipping labels needed. Often, too, companies use a combination of barrier paper and strapping to bundle and package at the same time (see photo above).

- **Interior packaging.** Don't overlook strapping for jobs like bracing your product inside its package, temporarily fastening accessories to the product, positioning insulation and cushioning materials, and suspending loads from their container walls for special bracing effects.

### Kinds of strapping available

- **Steel strapping.** The two most common kinds are standard and heavy duty. Anyone who works with steel strapping regularly knows that it stretches considerably.<sup>2</sup> Less commonly known, however, is that it shrinks back to shape somewhat after stretching.

Biggest difference between standard and heavy duty strap is the amount they stretch. Standard strap stretches very little. You can draw it to its full tensile strength with practically no elongation. This makes it ideal for strapping cartons, bundles, bales, and other light packages because they don't usually exert much

<sup>2</sup>The Association of American Railroads requires that strapping used for carloading have a percentage of elongation in six inches of from five to sixteen percent.

**If you don't use strapping somewhere in your plant, chances are you're overlooking one of the easiest ways to improve your material handling efficiency.**

## DO STRAPPING

strain on the straps. Heat-treated heavy duty strapping, on the other hand, is made so it will stretch under tension. This makes it suitable for heavyweight applications like carloading, where the straps must bear the shock of loads in the neighborhood of 50,000 lbs shifting under sudden starts and stops. These straps must stand up under bouncing, twisting, stretching, and other tortures and roll with the punch.

- **Rayon cord strapping.** The recently developed soft strapping made of tough rayon cord is strong enough for many of your strapping applications. It's lighter than the lightest metal strap, and easy to use. Even its most enthusiastic users do not claim it can do all the jobs steel strapping can do, but even the most unenthusiastic admit it is an extremely useful addition.

### Tools for strapping

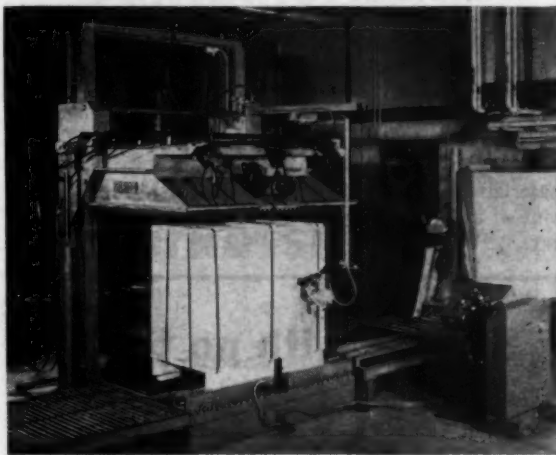
- **Tensioning.** The right tension on the strap is a must. Too loose and it might fall off, allow the load to jar until it breaks, or allow the container to work its way open. Too tight and it may damage the product and its container, or snap before its destination.

For round and oval strapping (still among the most popular for many uses) a combination one-piece tool does the entire job of tensioning, sealing, and cutting. It draws the strap tight, ties a knot, and cuts it with a single stroke of the handle.

- **Sealing.** The three most common ways to seal steel strapping are: crimping with metal seals, crimping the straps without seals, and spot welded. Cord strapping uses seals or recently-introduced buckles much like GI belt buckles. Sealers may be separate or built into the tensioner. They may be hand operated, but the combination tools or those for heavy steel strapping

## Shift to new equipment slashes strapping costs

Production line strapping of loads on skids is easy with this new semi-automatic packaging station. Two



men with this kind of equipment can strap a skid 50 percent faster than three men the old way. A wrapping machine drapes the wrapping paper around the skid as it moves along the conveyor. Then the straps are applied while the load is held under 20,000 lbs compression.

## Look for unusual uses

You may be surprised how many fastening jobs strapping can simplify. Here, cord strapping is used



to fasten decorations for a float parade. Companies using strapping for their routine production often overlook it when something unusual comes up. Award-winning employee suggestions often have to do with strapping parts that used to be fastened other ways. Don't necessarily limit strapping just to packaging uses.

are usually powered.

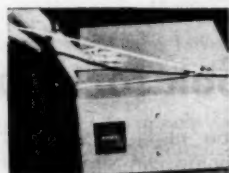
• **Cutting.** A strap usually has to be cut twice: once when it's put on and again when it's taken off. Cutting the length of strap off the reel when putting it on is usually the job of the tensioning tool. Sometimes you merely bend the tool at the seal to break the strap. In other cases there may be a special cutting device. To open strapped packages, most companies use simple cutters. But even here, make sure you use the right tool. The wrong one may be slowing down your operation, and may even endanger workers.

#### Accessories

• **Dispensers.** You may be wasting time, labor, and materials if you use the wrong dispenser or if you have none at all. The simplest dispensers are coil holders or trays. They keep the roll of strapping in an easy-to-use

## Sealing with no tools

You need no tools of any kind for complete strapping with this just-introduced cord strapping buckle. It's similar to a GI belt buckle. Just place the strap around the package, thread between bars of buckle, and pull to whatever



tension you like. The only tool you need is a scissors to cut the strap when you're finished.

No need to cut strap to length before using. Usable on settling or non-settling loads.

position, and away from floors or other places where it might get damaged. Some have a brake so the coil doesn't continue to unwind after the operator stops pulling. Others have power feed mechanisms to deliver the exact length of strap needed. Still others feed several straps at once. Dispensers come in portable models too, so you can move the entire strapping operation from one location to another. They may also have compartments for tools and seals.

• **Tool mounts.** To speed strapping and make the job as easy as possible for the operator, you may want special mounts—especially if you use power tools. There's no limit to the number of varieties possible. You can suspend the tools at working height, mount them on conveyors, or design any other arrangement to suit your needs.

• **Corner protectors.** Don't be scared off by the fear of straps cutting into the corners and damaging your

product. Your strapping supplier can show you several kinds of corner protectors that eliminate this hazard. Caution: Don't try to improvise your own. You run the risk of breaking the straps.

• **Anchor plates.** As important as the strapping itself for bracing loads in rail cars. Nailed to the car walls, they give you something concrete to fasten the straps to. Make sure you follow freight regulations for strapping loads in vehicles.

#### How mechanized should you get?

To answer this question, first determine the production rate of the other operations involved. Strapping equipment capable of outproducing the lines feeding it is probably a waste of money. Too-slow equipment is a costly bottleneck.

If strapping is occasional, you can probably get along with simple hand tools. But if you do a lot of strapping you'll probably save money by using power tools. (Like other investments, however, there's a point of diminishing return with strapping tools, where the extra advantages gained no longer justify the extra cost.)

Should you decide on power tools there are plenty to choose from. They may be semi-automatic, automatic, or fully automated.

• **Semi-automatic.** These usually combine tensioning, sealing, and cutoff into one operation. The operator positions the strap and turns the machine on and off for each package.

• **Automatic.** In addition to tensioning, sealing, and cutoff, the machine positions the strap as well. Feed from the strapping reel is usually powered.

• **Fully automated.** The field is wide open here. You can get strapping machines to do everything but whistle Dixie if you're willing to pay the price. And often it's worth it. If you already have automatic strapping machines you can fully automate them by adding electronic controls to eliminate the operator. But that's automation in its simplest form. There are much more sophisticated systems available. Example: some machines will strap any package that goes by regardless of its size, shape, or how fast it travels. Still others will read markings on the package and adjust themselves for varying tension, position of straps, or type of strapping.

#### How to select

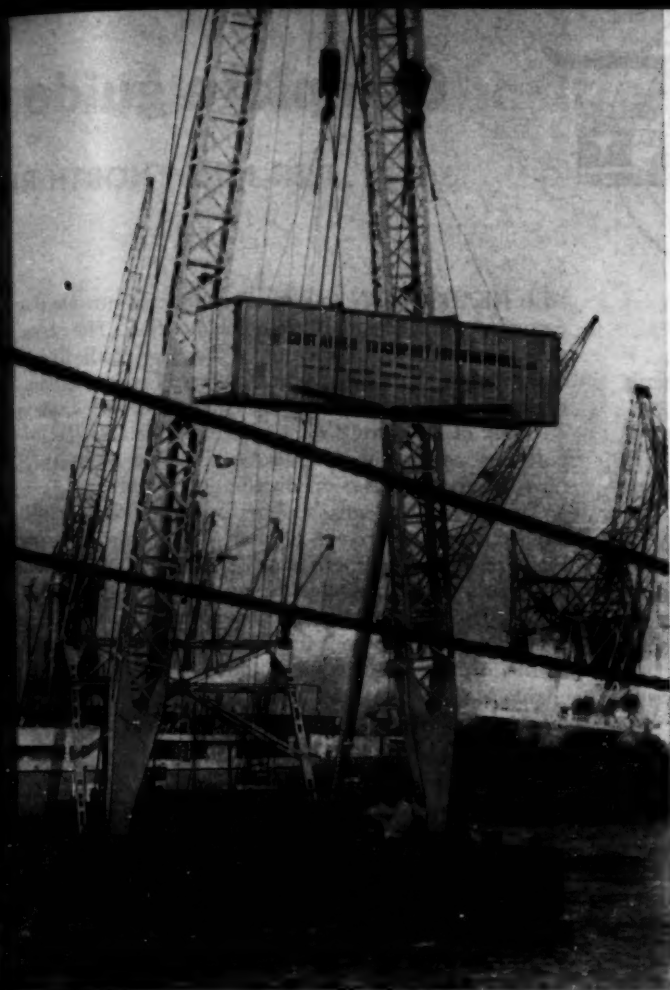
Regardless of what you may read elsewhere, it's unwise to select your own strapping equipment without consulting your supplier. Unwise because it's unnecessary.

Don't be a do-it-yourselfer when it comes to picking the equipment for your needs. Strapping manufacturers offer you a tremendously valuable advisory service. Take advantage of it. Factory trained sales engineers can not only tell you what's best for your needs but they may be able to design a strapping system that can improve handling, packaging, and shipping throughout your company. ♦

For their cooperation in this article H&S thanks: Acme Steel Co.; Allegheny Steel Band Co.; American Viscose Corp.; Brainard Steel Div., Sharon Steel Corp.; A. J. Gerrard & Co.; Inland Wire Products Co.; Signode Steel Strapping Co.; Stanley Works; and U. S. Steel Supply Div., United States Steel.

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SHIPPING



Container Transport International Inc.

## Containerization opens new export markets

*Carriers can now offer containerization to shippers who didn't have it available before. Opens overseas markets for firms that otherwise couldn't afford to export. Thru-bill of lading makes it feasible.*

**R**OTTERDAM DOCK WORKERS didn't know it, but as they watched the scene above they were watching the beginning of a trend. It looked like any other containerized shipment—the arrival of a cargo of out-board motors from Minneapolis, Minn. But this one was different. This cargo was shipped from an inland U. S. port not only in the same container, but under one thru-bill of lading.

Containerization, while catching on fast, is still uncommon when you move inland from port cities. (See "What's All the Talk About Containerization," H&S, Oct/Nov. 1960, p.14.) Many railroads are beginning to link container service with shipping lines, and many worthwhile container rental programs are underway. But many carriers have been reticent. Too much investment in equipment, too much interline paperwork, too much uncertainty.

The combination of container rental and thru-bill of lading, though, beats down much of the carrier reticence. It allows them to offer their customers a worldwide containerized service without investing heavily in new equipment and without boosting their operating costs. Manufacturers who were barred from export trade before because of prohibitive freight costs can now take another look. Many of them are finding they can ship from their U. S. factories to overseas customers at the savings containerization offers.

Basically, the benefits of containerization are:

- **Lower freight rates.** ICC hasn't yet settled the question of containerization rates, but some rates are already lower. One large load is easier, cheaper to haul and handle than several small ones. Thus carriers save, pass savings on to shippers.
- **Lower packaging costs.** Goods in the big containers don't need as much protective packaging as they would otherwise. Domestic packing is usually enough.
- **Less loss and damage.** Containerized loads aren't as likely to be tossed around or misplaced as smaller loads. And pilferage is almost unheard of.

In addition, the thru-bill of lading offers these advantages:

- **Single cost estimate.** The big advantage of the thru-bill of lading. The shipper knows exactly what the move will cost him before anything moves. Thus large volume shippers have a chance to budget their yearly transportation costs accurately. Bookkeeping and cost accounting are easier and cheaper, and the work load on the traffic or export department is lighter.
- **Single carrier responsibility.** Like the homeowner who contracts with a building contractor, the shipper signs a contract (bill of lading) with just one carrier. No matter how many times the shipment changes carriers, the shipper deals only with that prime contractor. If nothing else, the shipper saves on paperwork. ♦



# Complete guide

PIER NINE · NORTH RIVER

**Latest handling and shipping equipment on display. Theme will be Coordinated Transport. Fork truck parade through Manhattan will highlight events. Show will be concurrent with International Cargo Handling Coordination Assembly's technical conference. Officials pledge program will outshine last year's. Ten thousand expected.**

ALL HEADS TURN to New York next month for the Second Annual Cargo Handling Exposition. The show will take place at Manhattan's Pier 9, North River, September 6, 7, and 8. Manufacturers of material handling, shipping, and packaging equipment will display an array of the world's most advanced products. Transportation companies will also exhibit the latest they have to offer the physical distribution world.

Theme for this year's show will be Coordinated Transportation. Harry D. Hunter, show chairman, says Pier 9 has about twice as much space as Pier 1, where last year's show was held. Attendance last year topped 10,000; Hunter predicts it will be even higher this year.

Sponsor of the show is the Port of New York Chapter of the Alumni Association of the United States Merchant Marine Academy. They have made arrangements with New York City officials to hold a fork truck parade September 6 from City Hall to Pier 9.

## ICHCA Conference meets same time

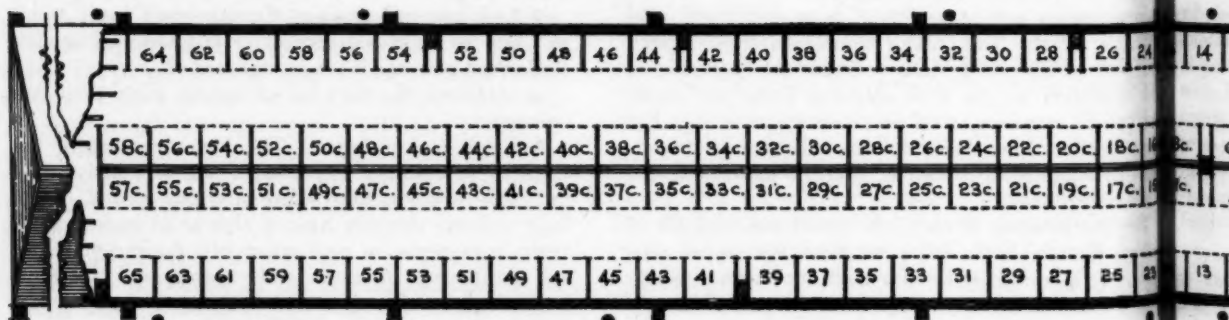
The show runs concurrent with the 1961 general assembly of the International Cargo Handling Coordination Association. ICHCA is a group of handling and

## FLOOR PLAN

Allis-Chalmers Mfg. Co.  
American Export Lines, Inc.  
Atlantic & Gulf Equipment Corp.  
The Budd Co.  
B&W Special Products, Collapsit Container Div.  
Cargocaire Engineering Corp.  
Champion Papers, Inc.  
Clark Equipment Co.  
Container Transport International, Inc.

Delaware River Ports Authority  
Dempster Brothers, Inc.  
Electric Products Co.  
Firemen's Fund Insurance Co.  
Fruehauf Trailer Co.  
General Electric Co.  
Grace Line, Inc.  
Handling & Shipping  
The Highway Trailer Co.  
Hudson Engineering Co.

International Terminal Operating Co., Inc.  
Isbrandtsen Co., Inc.  
Journal of Commerce  
Liquifreeze Corp.  
McRoberts Protective Co.  
Military Sea Transport Service  
A. A. Moore Distributors, Inc.  
National Castings Corp.  
North American Van Lines



Meet the staff of HANDLING & SHIPPING. We'll be at the Exposition—18 &

# Cargo Handling Exposition

NEW YORK CITY · SEPTEMBER 6-8

shipping experts from 63 nations, devoted to improved cargo handling techniques through free exchange of technical information. Its meeting will be September 5 through 9, at New York's Waldorf-Astoria Hotel. This is the first meeting of its kind in the United States.

W. J. McNeil, president of Grace Line, Inc., is ICHCA Convention chairman. The executive committee has arranged for worldwide authorities to speak at the conference. Here's the schedule:

**Tuesday afternoon, Sept. 5**—"Packaging and preparation of Cargo for Export," speaker: Col. R. B. Oram, London, England. "Standard Cargo Marking," speaker: Dr. Otto Kramer, Hamburg, Germany.

**Wednesday morning, Sept. 6**—"International Implications of Containerization," speaker: Mr. Deodat Clejan, General American Transportation Corp. "Economics of Distribution Costs in Consumer Pricing," speaker: Mr. Jonh Ingraham, New York Central System. "Case studies in Producer-to-Consumer Use of Containers," panel discussion.

**Wednesday afternoon, Sept. 6**—"Labor and Water-

front Automation," speakers: Mr. Wayne L. Horvitz, Matson Navigation Co. and Mr. Maz Kossoris, Bureau of Labor Statistics. "Port of the Future," speaker: U. S. National Committee representative.

**Thursday morning, Sept. 7 (Inter-American Day)**—"Cargo Handling Problems in the Americas," speaker: Dr. Jose Mora, secretary general of the Organization of American States. "Cargo Loss Prevention," speaker: Mr. Moises Woll Davila, chairman of the OAS Port Committee on Cargo Loss Prevention. "Cargo Handling Frontiers in Civil Aviation," speaker: R. Dixon Speas, consultant.

**Thursday afternoon, Sept. 7**—"Cargo Handling Problems in Underdeveloped Countries," speaker: Mr. A. G. Etherington, United Nations shipping advisor to Indonesia. *Summary, Resolutions, and Conclusion*, presiding: Rr. Adm. Gordon McLintock, president of U. S. national committee and president-designate, ICHCA.

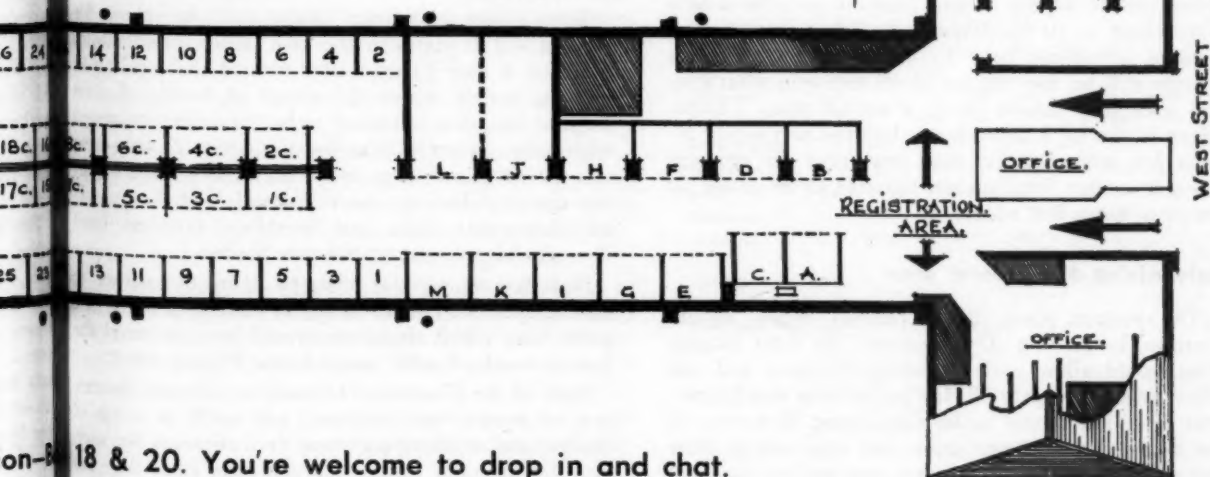
**Friday, Sept. 8**—Morning: Visit to Cargo Handling Exposition. Afternoon: Boat tour of New York harbor.

**Saturday, Sept. 9**—Review of the cadet regiment, U. S. Merchant Marine Academy, Kings Point, N. Y.

## OF EXHIBITORS

Port of New York Authority  
Paulson-Weber Cordage Corp.  
Philadelphia Dept. of Commerce  
Pittson Stevedoring Corp.  
REA Express, Inc.  
Reliance Electric & Engineering Co.  
St. Regis Paper Co.  
Santini Brothers, Inc.  
Seatrains Lines, Inc.  
States Marine Lines, Inc.

Strick Trailers Co.  
Thermo King  
Towmotor Corp.  
Travelift & Engineering, Inc.  
U. S. Pallet Corp.  
U. S. Trucking Co.  
Universal Terminal & Stevedoring Corp.  
Wallace System Co.  
Westinghouse Electric Corp.



on-B 18 & 20. You're welcome to drop in and chat.



## How to select plant locations

By **RICHARD A. STUART**  
General Traffic Manager  
Whitehall Laboratories, New York

(As told to H & S Editors)



*Although Author Stuart presents a hypothetical case, this is similar to an approach Whitehall used to determine an ideal location for a plant. He has kept it general so that anyone can apply it. You may have to include other things too, Stuart points out. For example, if your plant needs lots of fresh water you can't locate in the desert.—Ed.*

**L**ET'S SAY that Blank Corp., manufacturer of a nationally distributed product, has a plant in northeastern U. S. Let us also assume the company distributes west of the Rocky Mountains from west coast branches—the balance of the company directly from the plant.

Because the plant is operating at full capacity on a multi-shift basis, the management has decided that, to keep production costs at a reasonable level, it must either expand at the present location or build a new plant closer to its consumers. Realizing that the less distance shipments have to move the lower freight charges will be, they set out to determine in what general area they should locate a second plant. Somewhere in the U. S. there is one location that would require less transportation than any other for products going from that location into the area to be served by the plant there. But where?

### Determining the general area

The present plant, Blank officials figure, should continue to produce 32 percent of the total output. This would allow peak operating efficiency and still leave room for expansion. It's logical that this 32 percent of output should be for the nearest 32 percent of the market. In our hypothetical case sales records show that this includes the 14 states east and/or north of

Ohio, Kentucky, Tennessee, and South Carolina. So we rule these 14 states out as possible locations for the new plant.

The nine far western states (including Alaska and Hawaii) now serviced from the west coast branches account for only about 13 percent of sales. To locate there would mean backhauling to the largest part of the market. So we cross off these nine states as possibilities.

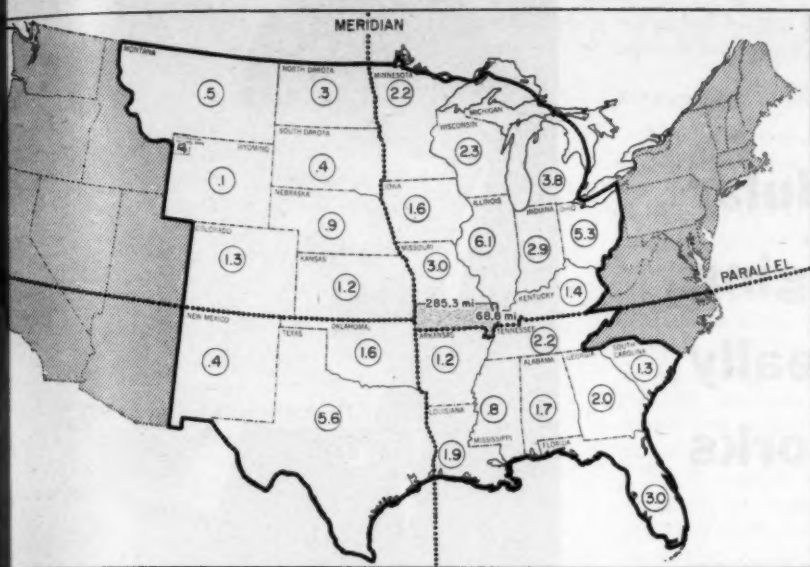
That leaves 27 states in which to consider locating the second plant.

First step is to determine the approximate center of density for the area remaining. There are several ways to do this, depending on what sales data are available. One could work with records by county, state, or sales territory. The finer the figures, the more accurate the results. The spherical geometry used to determine the center is similar to that used by the Bureau of Census to determine the center of population. Here's how it works:

Blank's sales department totaled the sales volume for each of the 27 states in the area under consideration. Then on a map (above) they entered that volume in millions exactly where the center of density of sales for that state was estimated to be. Next they estimated where the center of sales for the entire 27-state area was; in this case it turns out to be, let us say, the southeast corner of Kansas. The next step is to draw a parallel (horizontal line) and meridian (vertical line) through this point, along the state borders.

Now the company is ready to figure the answer to the big question: **where in the 27-state area is the one point from which shipments would have to travel the least to reach all other points in the 27-state area?**

Each of the 27 centers of density is a certain distance east or west of the meridian, and north or south of the parallel. Multiplying these two distances for each state by the sales volume for that state gives the sales



miles north, south, east, and west of the axis (see table at right).

The difference between east and west sums, divided by the total sales of the 27-state area (55 million), gives the number of miles that our best location is east or west of the meridian. Similar figuring for north and south would tell how far our imaginary center is above or below the parallel. In our hypothetical case it ends up 285.3 miles east of the meridian and 68.8 miles north of the parallel. It turns out to be somewhere in the vicinity of Carbondale, Ill. This point, theoretically, would require less shipping to cover the territory than any other point in the territory.

### Picking the specific city

A committee must decide what kind of community it prefers to locate in, then begin narrowing down the choices. Blank Corp. drew a circle with a 25-mile radius around Carbondale. The committee members visited each of the cities inside the circle and investigated them thoroughly. Here are some of the things they considered:

Attitudes, banking facilities, churches, climate, cost of living, culture, freight, government (local and state), health and welfare, hospitals, hotels and motels, housing, inducements, labor force, police and fire protection, postal service, raw and packaging materials, recreation facilities, schools, site (physical and zoning regulations), taxes, transportation, utilities, and wage rates.

A good way to evaluate each prospective city is to have all committee members grade each of them on all these features. Grade each feature from 1 to 10, then add the totals for each city. If you want to be still more accurate, assign a value to each of the features, from 1 to 20 (the more important the feature, the higher its value), then multiply the point grades by the assigned value. ♦

STATE	1960 SALES (Millions)	MILES FROM AXIS				SALES—MILES FROM AXIS			
		North	East	South	West	North	East	South	West
Alabama	1.7		452	333		768	566		
Arkansas	1.2		60	143		72	172		
Colorado	1.3	166			546	216			710
Florida	3.0		760	642		2280	1926		
Georgia	2.0		570	280		1140	560		
Illinois	6.1	330	365			2013	2227		
Indiana	2.9	238	523			690	1517		
Iowa	1.6	380	190			608	304		
Kansas	1.2	72			70	86			84
Kentucky	1.4	75	120			105	168		
Louisiana	1.9		140	450			266	855	
Michigan	3.8	452	642			1718	2440		
Minnesota	2.2	578	144			1272	317		
Mississippi	.8		270	330			216	264	
Missouri	3.0	162	145			486	145		
Montana	.5	713			665	357			333
Nebraska	.9	285			92	257			83
New Mexico	.4			119	645			48	258
North Dakota	.3	752			101	226			30
Ohio	5.3	265	670			1405	3551		
Oklahoma	1.6			120	142			192	227
South Carolina	1.3		805	238		1047	309		
South Dakota	.4	508			74	203			30
Tennessee	2.2		496	70		1091	154		
Texas	5.6			385	166			2156	930
Wisconsin	2.3	565	380			1300	874		
Wyoming	.1	452			480	45			48
<b>TOTAL</b>	<b>55.0</b>					<b>10987</b>	<b>18423</b>	<b>7202</b>	<b>2733</b>

$$\begin{aligned}
 &\text{Sales/Miles North—Sales/Miles South} = \text{Miles North of Axis} \\
 &\quad \text{Total Sales} \\
 &\quad 10987 - 7202 = 68.8 \\
 &\quad 55 \\
 &\text{Sales/Miles East—Sales/Miles West} = \text{Miles East of Axis} \\
 &\quad \text{Total Sales} \\
 &\quad 18423 - 2733 = 285.3 \\
 &\quad 55
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 \quad \left. \vphantom{\begin{aligned} &\text{Sales/Miles North—Sales/Miles South} = \text{Miles North of Axis} \\ &\text{Sales/Miles East—Sales/Miles West} = \text{Miles East of Axis} \end{aligned}} \right\} = \text{Carbondale, Illinois}$$

## Modular packaging really works

By **BERNARD E. KRUGER**  
Senior Industrial Engineer  
Premier Industrial Corporation  
Cleveland

**Modular packaging is not new. The theory has been around for years, but only a few companies—mostly West Coast aircraft firms—have done anything about it, and most of their work has been with collapsible wood boxes. Here a worldwide distributor of automotive parts describes a modular system designed for conventional folding paper boxes and corrugated shipping containers.**



**W**HEN IT GOT TO THE POINT where we had 90 different size parts boxes and 40 shipping containers, we decided it was time to do something about it. Modular packaging worked miracles. It has saved us \$12,000 a year in materials alone. We haven't yet figured the savings in in-plant handling and shipping costs, but we're sure they're equally impressive.

Our company distributes some 7,000 automotive and industrial maintenance products. We design them in our Cleveland headquarters and sub-contract them to qualified manufacturers, who ship them to us in bulk. We needed a packaging system that would (a) cut the number of packages we needed down to a sensible few, (b) reduce packaging and shipping costs, and (c) cut internal handling and warehousing costs.

### **The unit load basis**

In a modular packaging system all the boxes are in multiples of one basic size. (One large box, for example, might be the same size as four small ones, or eight, or sixteen, etc.) That way you can construct building blocks of different size boxes and come up with the same unit load size.

We first determined what size unit load would suit us best, then figured what modular sizes would build up to it. Because most of our packaging is for hardware items like cap screws and nuts, we concluded that the keg pack shipping cartons they come in ought to be our basic module, or unit load. This would enable us to save money by reusing incoming shipping containers as master packs for in-plant handling.

The inside of the keg pack carton measures 11" long, 11" wide, and 17" deep. We decided to keep our system

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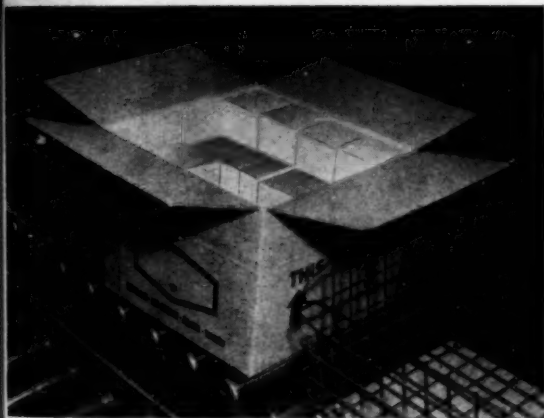
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August

modular only in length and width. (A 3-dimensional modular system is possible but we thought it would be much more complicated than we needed. If the modular boxes packed inside the shipping container don't quite come up to the top we fill the void with wadding.) We developed modular tables based on box length and width to find what combination of sizes would fit best into the 11" x 11" unit load box. We divided 11" into halves, quarters, and eighths, giving us modular lengths and widths of 11", 5½", 2¾", and 1⅜" to choose from. We chose six of these combinations (there are 36 possible) for our modular system: 1⅜" x 1⅜", 1⅜" x 2¾", 2¾" x 2¾", 2¾" x 5½", 5½" x 5½", and 5½" x 1⅜". A seventh, 13¾" x 13¾", is used occasionally. Though larger than the basic unit load, it is still part of the modular dimensions (11" x 2¾").

Next we had to decide what heights to use. We had already decided heights would not be modular, so it was entirely a matter of finding what volumes we shipped most commonly, and trying to obtain these volumes in as many of our length-width combinations as possible. We finally ended up with 22 different size modular boxes that adequately contain 95 percent of the items handled by Premier. (It's important to note, incidentally, that the dimensions we have talked about so far are outside dimensions; they must be, to add up to the exact inside dimensions of the shipping containers.)



**MASTER CARTON** for in-plant handling and storage is suppliers' keg pack in which parts arrive at plant. Note different size modular boxes inside, all adding up to 11" width and length. Note too that heights vary; corrugated packs are scored at several heights so flaps can be folded shut at any height.

### Modular shipping containers too

Once we had decided upon the basic box sizes we attacked the shipping carton size problem. Inside dimensions of the shipping cartons had to be modular to the outside dimensions of the parts boxes. Again evaluating and eliminating wherever possible, and still using 11" as the basic module, we came up with eight shipping carton sizes: 2¾" x 2¾" x 4", 5½" x 5½" x 5½", 8¼" x 5½" x 7", 5½" x 5½" x 16", 8¼" x 8¼" x 8½", 11" x 11" x 8¼", 11" x 11" x 17", and 13¾" x 13¾" x 10". Notice that the length and width of all eight of these sizes are combinations of the modular lengths and widths of the smaller parts boxes. Again,

we picked heights that best suited the volumes we ship, because heights are not modular.

### Streamlines in-plant handling

As soon as we put the system in effect we noticed vast improvements in our in-plant handling. Even if it did nothing else, modular packaging would have been worthwhile for us by cutting the number of different boxes we had to store from 130 to 30. But there have been still greater benefits.

Before the modular system, our packaging department used to pack the parts in individual boxes and place them in steel trays for transfer to the picking bins. Stock handlers had to pick up the trays and hand-load the bins, box-by-box, newest stock up front. Inventory control had to determine in advance how many of each part could fit into the allocated bin space.

The first thing we did after installing modular packaging was to change to a standard bin plan with three items per shelf and five shelves per section, or 15 items per section. This gave us enough space to store one full keg pack (unit load) of each, and it reduced bin area from two floors to one.

Now packers put parts directly into the keg pack master containers instead of trays. Conveyors move these packs to the bin area. For fast-moving parts, an extra amount goes to another storage area, where large quantities are stored on skids. Gone are the cumbersome handling and storage, and gone too is the need for precalculations by the inventory control department.

When replenishing bin stocks, stock handlers now place a full master pack unit into a bin. But to do it they must remove any remaining boxes along with their master pack, and place the old boxes in front. Thus stock rotation is assured.

### Shipping dept. benefits too

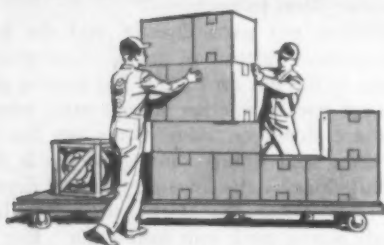
In our shipping department a survey revealed that, under our old packaging system, we had been normally using only about 50 percent of the cubic capacity of our shipping cartons. At least half the available space was wasted—filled with wadding—because we couldn't match parts box sizes to shipping carton sizes. A recent study revealed that modular packaging has boosted that 50 percent up to 85 percent—just 15 percent of the available volume now goes unused. This means we use fewer cartons, less wadding, less dunnage. And shipping costs are considerably lower.

Still another benefit: Our modular packs assure a really solid bottom layer to each shipping carton. This cuts shipping damage drastically by preventing boxes from jolting around inside their containers.

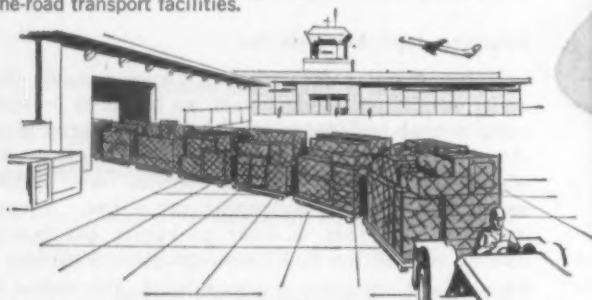
### The benefits in retrospect

Our modular packaging system took us 18 months to design and get into operation. That represents a large investment in development time and money. But we have no regrets. The system has done all we hoped it would, and then some. Not only has it reduced Premier's material handling, packaging, and shipping costs, but it has given us another benefit—one you can't measure. That's customer good will. Nobody knows how much business we have gained from the neater packages and quicker service. ♦

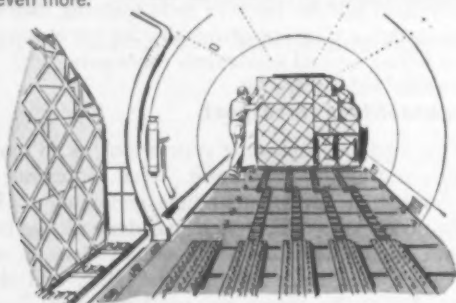
# PAN AM ADDS **AIRPAK** CARGO HANDLING SYSTEM to THE WORLD-WIDE MARKETING SERVICE



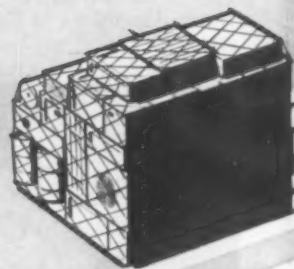
1. Shipments are "unitized" on standard 88" x 108" pallets. These pallets are the same size as pallets specified by MATS (Military Air Transport Service) and are compatible with over-the-road transport facilities.



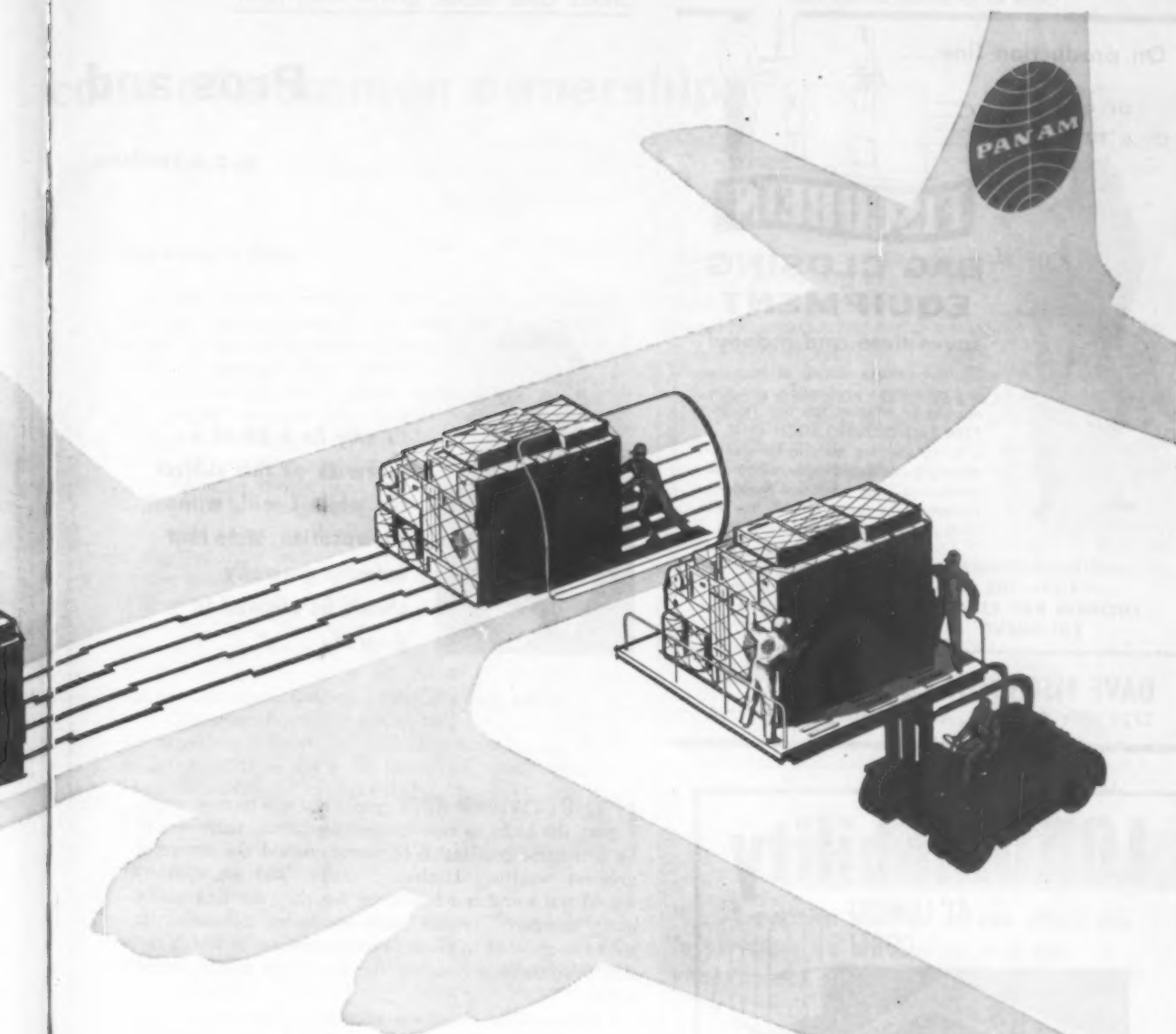
2. Each pallet can carry up to 6700 pounds of cargo, can be packed according to destination, to combine many items from the same manufacturer, or from various shippers, speeding handling even more.



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## SHALL ONE MODE OWN ANOTHER?

## Pros and cons

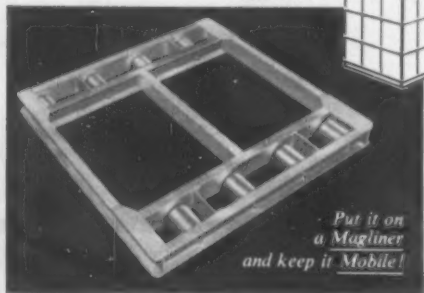
By C. H. VESCELIUS,

Direct



*"I may be a bit of a maverick on this subject for while I will, without equivocation, state that industry generally should be allowed to diversify . . ."*

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IF THE GOVERNMENT grants a single form of transport the right to own competing forms, there would be a natural gravitation of power toward the source of greatest wealth. Highway, water, and air carriers would not stand much chance, for they are financially puny compared to our more successful railroads. It seems to me that to allow open acquisition in which the rich eventually gobble up the poor, the public would suffer.

I fully realize there are arguments converse to this statement: "... We have learned our lesson and would not, for ethical reasons, think of putting ourselves in this position." Or, "... Surely there are safeguards, through ICC for example, that would step in to prevent any abuse of the privilege if granted."

We are all rightly concerned with the amount of government regulation and restriction on present transport. But if virtual monopolies were to be the outcome of common ownership on a large scale, would not this eventually result in more extensive regulations to protect the public? Such was the case in the early days of monopolistic railroading, which resulted in the original Act to Regulate Commerce, enacted in 1887.

So, the best way I can think of to express views on common ownership is to examine both sides of the issue. Let's take a look at some of the arguments for and against railroads diversifying into other modes of transportation to form what they call "complete transportation companies" (like Canadian Pacific)—setting themselves up as the supermarkets of the transportation business.

# cons of common ownership

Director of Transportation, Olin Mathieson Chemical Corp., New York

## The case in favor

By and large the railroads favor common ownership, the other modes oppose it. Just what you would expect of the consumer-consumee relationship. Here are some of the arguments of the proponents:

1. Combining various modes of transportation under one owner would mean cheaper, better service for shippers. Management costs would be lower, and there would be tremendous savings in paperwork.

2. Reducing competition would reduce waste. There would still be competition, but between carriers offering complete service in all modes—not between modes. Today we have carriers competing with other carriers of the same mode, as well as with the other modes. The result is that we have far more common carriers than we need. The public is paying their overhead, operating expenses, and profit. Pruning the system down to a sensible size would reduce these costs, and the savings would pass on to the shipping public.

3. Common ownership would help mitigate some of the inequities between railroads and other modes. Railroads would then share the benefit of public expenditures now invested in waterways, highways, and airports.

## The case against

Here are the basic arguments against common ownership (assuming, as before, that the railroads would emerge as sole owners of all forms of transportation):

1. It has been the history of American business that

technological improvements come about through competition. Hence improvements in air, water, and motor services would be more likely to develop if the modes were kept separate and independent.

2. Railroads would favor keeping freight on the rails if they owned other modes. Their investment in equipment is so great that, to protect it, they would tend to let service run down on water, air, and motor lines, and keep their rates high. And this would stifle still further the railroads' incentive to improve rail services or lower rail rates.

3. With independent carriers forced out of business, railroads would remain as the sole purveyors for avail-



**"... I question whether we can afford this luxury when we are dealing with our vital common carrier transportation system."**



**"... Industry is not protected by franchise; companies may elect to diversify and go broke if they please. It's their privilege ..."**

able traffic. Supporters of common ownership claim this could not happen—that the supermarkets would still be competing with each other if not with the independents, and that this competition would force lower rates and better service. Furthermore, they claim, raising rates would be an invitation for the independent to come back into business and compete for the traffic by offering lower rates. But it wouldn't be that easy. How could a company starting out raise enough capital to challenge a railroad-owned transportation supermarket? It would not be as though a barge line or truck line would be going back into business simply to compete against rail rates and service. They would be returning to the transportation to compete against railroad-dominated barge and truck lines. The railroads could, if they wanted, lower rates on the lines they owned just long enough to bankrupt any new competitors, then raise them again once shippers had no recourse. This is what shippers are afraid of. ♦

## Do warehouse employees rob you blind?

***Employees approve of polygraph examinations—if they're the type of employees you want—because tests nail the guilty, exonerate those who have nothing to hide.***

**A** MIAMI WAREHOUSE recently uncovered a ring of thefts by company employees. Trusted workers had deftly lifted over \$70,000 worth of air conditioners, TV's, and stereo hi-fi sets. Lie detector tests given to 21 employees brought 16 confessions. One man alone had disposed of 30 air conditioners in less than a year. As a result of the tests the company will be reimbursed about \$40,000 by its bonding company.

In a Massachusetts warehouse, privately owned, 18 men signed confessions totaling \$1.1 million.

At a New York warehouse every driver, every helper, every packer, and the platform superintendent and his

helper were part of a massive ring stealing hundreds of thousands of dollars worth of merchandise a year. All their thefts were to order, and the merchandise was even delivered in company trucks.

### ***Thefts total \$4 million a day***

Employees are currently stealing better than \$4 million a day from U. S. businesses. That's about one billion dollars a year!

"If your employees didn't steal money, merchandise, and time from you last year you are an exception to the rule," says Lincoln M. Zonn, security consultant

**POLYGRAPH** expert Lincoln Zonn giving test to warehouse worker. No personal questions not relevant to the job are ever asked. In one case the question "Are you married?" led to an investigation revealing a wholesome looking applicant to be a habitual criminal, drinker, and in trouble with women.





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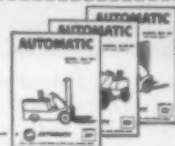
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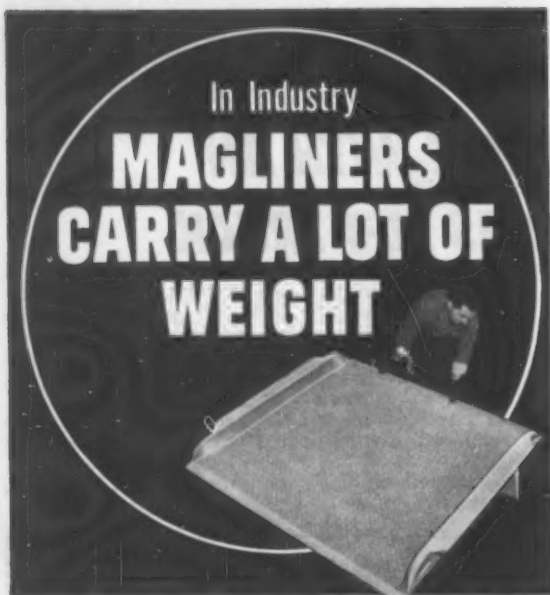
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and a leading polygraph specialist.

#### **Management is to blame**

Zonn doesn't blame the whole situation on the employees. He believes much of the dishonesty is the fault of management for not providing proper security safeguards. "The truth is, for most of us honesty is a relative thing," he explains. "The employee who is offered the temptation of easy pickings, who sees others stealing without getting caught, or who thinks he has a righteous grievance against the company and can get even by stealing—this is the employee who turns thief." The best way to keep employees honest, he believes, is to reduce their chances of getting away with anything dishonest.

#### **Top employees are often exposed**

Stealing is by no means limited to your truck drivers and unskilled laborers. Management people often practice the art of moonlight requisitioning, and they're the toughest to spot; they can cover up shrewdly. Zonn tells of a large manufacturer who called on his firm to investigate a \$6,000 inventory shortage. Lie detector tests uncovered not \$6,000 but \$350,000 in thefts. Twenty-one employees had been stealing diligently for six years. And they had been able to manipulate inventory records to conceal their thefts. Even though the company used electronic computers and punched cards to keep inventory records, the losses were so cleverly concealed they never showed up. As a result of the evidence the lie detector tests uncovered, the bonding company awarded the manufacturer enough in restitution to make the difference between bankruptcy and solvency.

#### **Innocent workers don't object**

As important as pinning the guilty, lie detector tests also absolve the innocent. In a recent case, a young worker had been fired for allegedly pocketing \$5 of company money. The head of his local union urged him to take a lie detector test. He was found innocent, and was reinstated by the company.

Although some people object in principle, most are willing to take the test unless they have something to hide. And if they are guilty they usually think they can beat the test; even if they don't want to take it they would usually rather submit than look guilty by refusing. Nobody, however, has to take such a test.

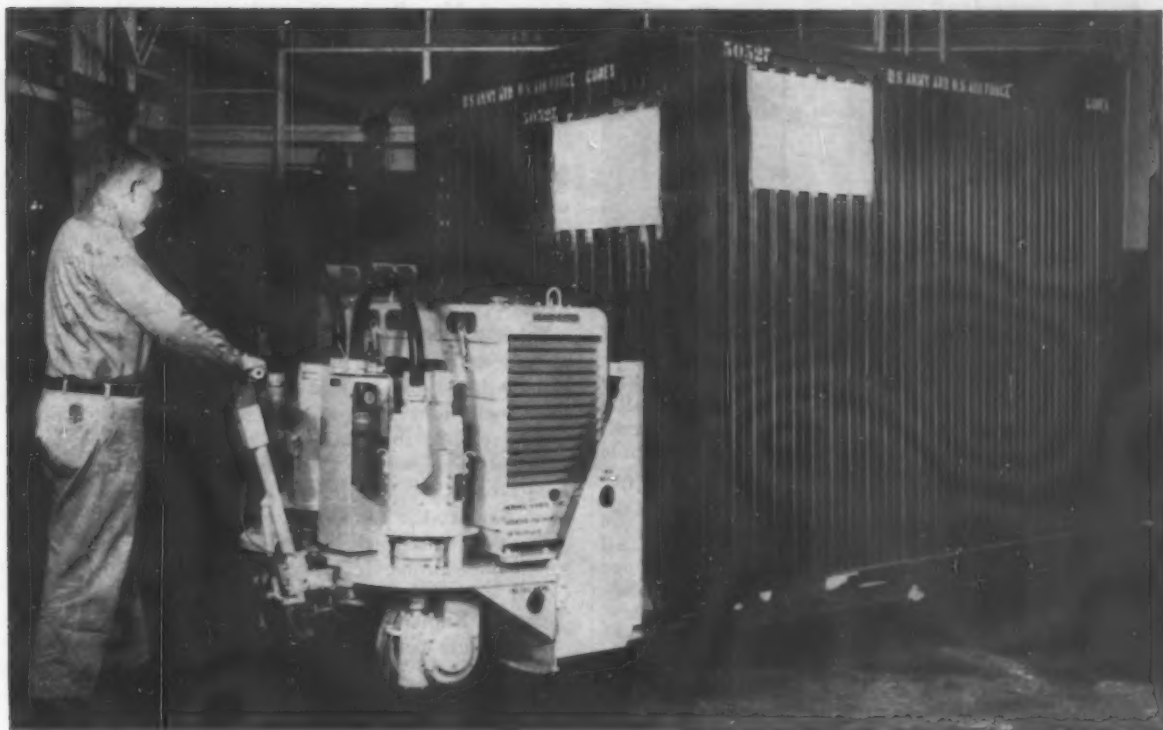
#### **How accurate are tests?**

Is the lie detector accurate? Yes, when used by a qualified examiner. It measures and records heartbeat, respiration, and perspiration. It's hard to fool the machine.

#### **Used for hiring new employees**

Many personnel departments now give lie detector tests to all job applicants. The tests reveal whether the applicant intends to stay on the job, if he has a record of past dishonesty, if he has financial problems that would make him undesirable, if he is telling the truth about past employment and references, and many other important things that you might turn him down for if you knew before hiring him.

Often it makes sense to test employees regularly—say, every six months. Honest employees welcome it, even joke about it. And it's the type of security measure that keeps everybody honest. ♦



## Army's revolutionary lift truck aids containerization

By HENRY LEFER, *Eastern Editor*

FT. EUSTIS, VA.—Here at TRECOM, headquarters of Army's Transportation Research Command, they're developing way-out transportation devices like rocket belts to whoosh GIs over treetops and rivers, and ground effect machines to hover cargoes on a cushion of air. They're developing special hooks and helicopter platforms for direct transfer of supplies from ship to shore, and self-propelled beach discharge lighters that can connect to MSTs rollon/rolloff vessels to act as a seagoing bridge between the transports and the shore.

But TRECOM is down to earth, too. In addition to these sensational projects that hit the front pages and the TV late news shows, they work on less glamorous—but every bit as essential—programs like those for improving the handling of Conex containers. These are the programs with the greatest immediate interest to private industry.

Conex, developed by the Army during World War II, is the grand-daddy of all containerization systems. There

are about 80,000 Conex containers in use all over the world. Controlled by the Joint Conex Control Agency (JCCA) in Washington, they are used by all our mili-

**INTREPID** Editor Lefer climbing ladder of Army freighter Hickory Knoll in Chesapeake Bay to see American Pulley transfer jack in action in ship's hold.





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tary services. Because they're reusable, there's a constant traffic of Conex containers back and forth between the U. S. and overseas stations. For instance, as the infantry's M1 rifle is replaced by the new M14, thousands of containers will be needed to send the new ones overseas and bring the old ones home.

### Hard to move in ships hold

It's usually easy enough to handle the Conex on land. But it's tough on a cargo ship. A fully loaded Conex weighs in the neighborhood of 10,000 lbs (depending on the load). They're hoisted aboard ship and placed in the hatch by the ship's cargo handling gear. Then they're tight-stowed by snaking, using a block and tackle. This takes many man-hours.

It would be faster if loading crews could use heavy-duty fork trucks in the hold. But most trucks have serious drawbacks in this kind of service. They weigh too much; they tilt going over sills and obstructions and may slide their loads off to the deck; their forks won't slide under the Conexes without special attachments or skids; and inexperienced or careless drivers often damage the containers with their forks.

A new vehicle, called a transfer jack by TRECOM, solves these problems. It was built by American Pulley Co. It was designed by Pat Shea, chief of TRECOM's Terminal Branch and Lt. Curtis Broken, test engineer.

The American Pulley jack is fast. I saw Conexes tight-stowed in less than a minute by a single man operating one of them in the hold of the *Hickory Knoll*, a CIMAVI freighter used by the Army Transport Command for troop training.

The jack consists of a lift platform with eight rollers and a gasoline engine-driven generator (alternate versions may be battery or diesel driven). The generator powers two 5-hp electric motors that drive the vehicle and run the hydraulic pump for the lift cylinder and steering mechanism. Special scissors-type construction under the platform, and the manner in which the platform and power unit are articulated, keep the platform nearly level fore-and-aft and side-to-side as it goes over obstacles. They also keep the platform from tipping the truck over, and vice versa.

### Specifications

The lift platform is 72" long by 52" wide. It can drop to 4 $\frac{3}{4}$ " to slip between the bottom runners of the Conex, then raise to 8" to clear over obstacles as they move. It can clear a 4" hatch cover having a 10" brow plate.

All controls are mounted on the handle. The vehicle is loaded with safety devices including a deadman switch. Its drive embodies a double-enveloping worm gear powerful enough to stop the vehicle dead in its tracks, eliminating the need for dynamic braking and reducing the size of the braking system needed to hold the load.

The entire truck is light enough to ride out to the cargo ship in a small craft like the amphibious DUKW, and raised aboard ship and placed in the cargo hold by the ship's deck gear. As Pat Shea sees it, every port or terminal stevedoring crew would have a number of the transfer jacks assigned to it, and would carry them along from job to job. ♦

# Will Hoffa get his piggyback surcharge?



Teamsters' James R. Hoffa

**NOTE:** As this issue of H&S went to press, the editors tried to reach Hoffa for a statement on the piggyback surcharge, but he was unavailable for comment.

**T**HE TARGET DATE of August 1st came and went, but there emerged no recommendation from the special committee on piggyback surcharges.

This committee was born as a result of a labor-management dispute last winter. One of the stipulations of the Feb. 1st labor contract between the Teamsters Union and the Central States motor carriers was that a \$5 contribution would be paid to the union for every trailer or container delivered by piggyback, birdyback, etc. (See "What the new Teamster contracts mean to shippers," H&S, April/May, 1961, p. 20).

The union claimed it needed this indemnity to compensate for jobs piggyback has taken away from truck drivers. Carriers objected that such a fee, instead of helping, would hurt still more by pushing shippers into all-railroad piggyback, thus taking away the piggyback business truckers now get.

The union agreed to postpone the issue a year. It set up a special nonpartisan committee to find a better solution by Feb. 1, 1962. If no settlement came by that time the original \$5 provision would go into effect.

The committee was scheduled to present a proposal by the half-way mark, Aug. 1. But as far as anyone can ascertain they have done little, if anything so far. A significant step—perhaps the only one so far—has been taken by the State of Illinois. The legislature there recently enacted a law banning such charges in the state. ♦

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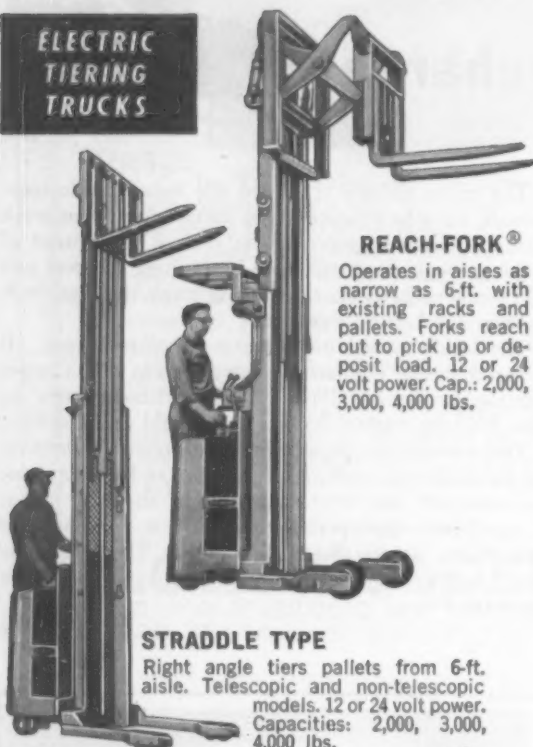
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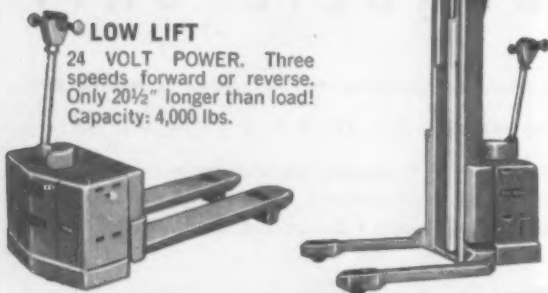
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Tiers 2,000 lb. pallet load 10 feet high from 6½ foot aisle. 24 volt power. Three speeds forward or reverse.



#### LOW LIFT

24 VOLT POWER. Three speeds forward or reverse. Only 20½" longer than load! Capacity: 4,000 lbs.

### The RAYMOND CORPORATION

30106 Madison St., Greene, N.Y.

Please send FREE bulletins:

☐ Reach-Fork      ☐ Straddle  
☐ Walkie Low-Lift      ☐ Walkie Stacker

NAME \_\_\_\_\_ TITLE \_\_\_\_\_  
COMPANY \_\_\_\_\_  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_

Circle 61 on Reader Service Card

## IT'S THE LAW

### Crackdown on antitrust violations

Ryder System, Inc., has agreed to dispose of 400 leased or rented trucks as one of the conditions in the settlement of a civil antitrust suit filed against it by the Justice Department last year. The company also agreed not to acquire other truck-leasing companies during the next three years in cities where it already has 50 or more trucks leased or rented. However, nothing in the decree precludes acquisitions by Ryder of truck-leasing companies in other cities. The decree does not affect the company's motor carrier or other activities; only leasing and renting.

### ICC approves piggyback rates

A number of challenged rail rates and freight forwarder volume commodity rates for piggyback were upheld by the Commission recently. The ICC's decision in Docket No. 32533, Eastern Central Motor Carriers Assn., Inc., vs. B&O Railroad, et al was served June 28. Motor carriers protesting the rates, charging they "constitute unfair and destructive competitive practices in contravention of the national transportation policy" and are "designed to destroy motor carrier competition." Piggyback rates 5% to 6% higher than corresponding sea-land rates on copper, brass, and bronze articles from Waterbury and New Milford, Conn. to Dallas and Fort Worth have also been found just and reasonable by the ICC.

### New England motor rate amendment

Application has been filed for ICC approval of amendments to The New England Motor Rate Bureau, Inc. 5a agreement No. 25. The major change is the addition of Canada as an extended area in order to consider rate proposals to and from the New England Territory to and from Canadian points.

### Donley calls proposal unrealistic

Charles M. Donley, Chairman of the NITL's Common Carrier by Motor Vehicle Committee, and a member of H&S's editorial advisory board, wrote the National Classification Board recently opposing Subject 95 of National Classification Board Docket No. 99. This would require shipper to load and consignee to unload any single container or shipping unit over 100 lbs. Donley said the proposal was unrealistic, and further, that the "restrictive and confining provisions such as here proposed place a pointless handicap on most carriers in that they present an added incentive to greater utilization of private motor equipment."

## USEFUL LITERATURE

### Self-dumping hoppers

Standard lift trucks become efficient bulk carriers with self-dumping hoppers. For scrap, sand, chemicals, any other bulk commodities. Spotted throughout your plant they make handy storage bins, portable when needed. Booklet describes several uses.—*Roura Iron Works, Inc.*

Circle 218 on Reader Service Card

### Packaging for mail the easy way

Padded shipping bags are the subject of case history brochures available for the asking. Just insert contents, fold mouth, and staple. Tough kraft outer liner and cushioned inner liner protect even fragile goods. Tear tape opener. Several sizes.—*Jiffy Mfg. Co.*

Circle 219 on Reader Service Card

### Tachographs boost truck efficiency

Precision recording instrument designed to insure profitable vehicle operation described in detail. Records speed and/or engine rpm, number of stops and starts, trip mileage, and engine idling. For

highway trucks or lift trucks.—*Argo Instruments Corp.*

Circle 220 on Reader Service Card

### Make your own boxes

Corrugated boxes custom-made in your plant as you need them. Booklet describes how. Rite-Size boxmaking machine does the job. Easy to use. Delivers any size or shape up to 90" x 18" x 18".—*Cold Packaging Machinery Co.*

Circle 221 on Reader Service Card

### 35 Ways to Reduce Shipping Costs

That's the title of new booklet available to shippers. Includes most common mistakes shippers make, and how to avoid them. Send \$1 to: *The Institute for Business Research, Inc., 49 West 57 Street, New York 19, N. Y.*

### Truck bodies have aeronautical design

Lyn Airvan aluminum delivery bodies, aeronautically designed, come in 96", 126",

and 144" body lengths, all 72" high and 78" wide. Booklet says they save you 1½ cents a mile, lists specifications and features for all models.—*Dayton T. Brown Airvan Div., Lyncoach & Truck Co., Inc.*

Circle 222 on Reader Service Card

### Chart lists air cargo rates

New air commodity rates between England and U. S. are published in wall chart available for the asking. These new rates are considerably lower than past rates.—*British Overseas Airways Corp.*

Circle 223 on Reader Service Card

### Easy way to spot rail cars

Bulletin 3002-01 describes compact car puller. Rapidly handles five loaded rail cars with five hp motor. Simple, trouble-free operation. — *Archer-Daniels-Midland.*

Circle 224 on Reader Service Card

### Numbers labels as it prints

Bulletin describes how numbering device enables you to print additional informa-

Continued on next page



**AP Load-Lift  
SKID AND PALLET  
TRUCKS**

**It's Easy Rolling  
To Lower Costs**

Skid Trucks **\$315<sup>00</sup>**  
as low as

Separate pulling and load-raising handles assure maximum ease, safety, and maneuverability.

See your local AMERICAN Distributor for prompt delivery and expert planning help in all phases of materials handling.

**AP**  
**THE AMERICAN PULLEY COMPANY**  
4200 WISSAHICKON AVENUE • PHILADELPHIA 29, PA.  
A division of VAN NORMAN INDUSTRIES INC.

Circle 3 on Reader Service Card



**MAGLINER MOBILE LOADING RAMPS** go where you go... provide a loading dock where you need it, when you need it! Magnesium-light construction for easy one man handling—anytime, anyplace. The result: easier work, happier men... lower cost loading! If you load or unload trucks or railcars from ground level, you'll want a copy of Magliner's Bulletin—"Everyday Ground-Level Loading Problems and How to Solve Them."

WRITE TODAY FOR BULLETIN DB-211

Magliner Inc., P. O. Box 228, Pinconning, Michigan



**MAGLINER MOBILE LOADING RAMPS**

Circle 48 on Reader Service Card



THE WABASH  
RAILROAD  
DISCOVERS...

## There's a Dollar-Saving Difference

IN ALLIS-CHALMERS  
LIFT TRUCKS



### 17,500 Hours Without Engine Overhaul

Time and hard work is proving the difference in lift trucks at the Wabash Railroad LCL freight house in East St. Louis, Ill. The oldest of three Allis-Chalmers lift trucks has run more than 17,500 hours, the next oldest, 13,000 hours, and none has required an engine overhaul.

But in addition to reliability, "It has terrific drawbar pull," according to the station manager, "and that's mighty important here." The 4,000-lb FT-40 is used to skid crated machinery weighing up to 20,000 lb.

Have your dealer show you how the pluses these trucks offer can mean a big dollar-saving difference on your job. Allis-Chalmers, Milwaukee 1, Wisconsin.

BH-166

ALLIS-CHALMERS



POWER  
FOR A  
GROWING  
WORLD

Circle 1 on Reader Service Card

## USEFUL LITERATURE

tion on labels. Coding, batch number, shift number, carton record number, etc. Attaches to automatic label printing machines.—Weber Marking Systems, Inc.

Circle 225 on Reader Service Card

### Storage planning guide

Convenient pamphlet describes adjustable storage rack system. Includes section on fundamental storage theories. Also a tear-out section with layout grid to plot your storage needs. Offers free planning help.—Sturdi-Bilt.

Circle 226 on Reader Service Card

### Self-sticking letters

Black letters on bright reflective background stick to any clean surface, make it easy to mark bins, bays, fire stations, etc. They're water, oil, and abrasion resistant. Several sizes and background colors.—W. H. Brady Co.

Circle 227 on Reader Service Card

### Power conveyor catalog

Complete 88-page reference book is devoted entirely to powered conveyors. Includes design features, standard applications, and engineering data. Ten pages

of application photos. Indexed for easy use.—Lamson Corp.

Circle 228 on Reader Service Card

### Check and Double Check

That's the title of a periodic bulletin available to shippers. Tells how to ship properly, to get goods to consignee on time and in good condition, to stop claims before they start.—McLean Trucking Co.

Circle 229 on Reader Service Card

### Color coding spray enamels

Bulletin describes new line of fast-drying enamels for all types of color coding. Lists 18 popular colors plus black, white, clear, zinc chromate primer, and plastic sprays. Use inside or out.—Reynolds Ink, Inc.

Circle 230 on Reader Service Card

### 20 Ways to package better

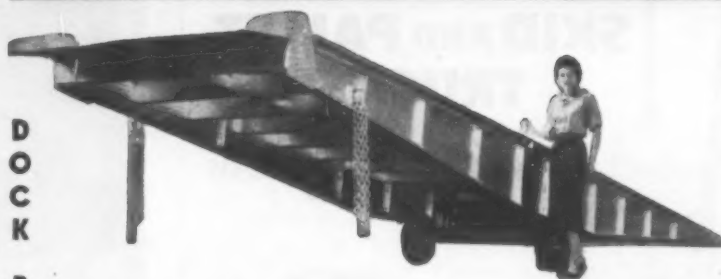
Tested methods to improve packaging and shipping operations. General tips, with emphasis on proper closing methods for shipping cartons. Includes parcel post packing regulations.—Better Packages, Inc.

Circle 231 on Reader Service Card

### 3-Wheel utility trucks

In-plant trucks, gasoline and electric, are the subject of a full-color booklet just

## lite-line Mobile Yard Ramps



**The dock that goes to the job  
will cut your loading costs**

A Lite-Line Yard Ramp moves easily into position, to load or unload truck or rail car.

**SAFE • RUGGED • LIGHTWEIGHT**

For complete information write to

lite-line  
MAGNESIUM DOCK EQUIPMENT

LITE-LINE METAL INDUSTRIES  
DIVISION OF  
COPPERLOY CORP.  
Cleveland 35, O.

Circle 21 on Reader Service Card

published. It describes several different models, and suggests money-saving uses many plants don't consider.—Cushman Motors.

Circle 232 on Reader Service Card

### New Ideas in Materials Management

Describes a proven method of cost reduction for manufacturers, wholesalers, and retailers through warehousing approach to management of material flow. Illustrates equipment and techniques for live storage and transportation of raw materials and finished products. Tells how to recognize warehousing problems, and how to solve them.—The Rapids-Standard Co., Inc.

Circle 233 on Reader Service Card

### Cargo containers for lease

Catalog describes most popular for-lease containers. From 340 to 2210 cu. ft. Aluminum, steel, or wood. Specifications, dimensions and long-term and short-term rates included.—Container Leasing Corp.

Circle 234 on Reader Service Card

### Facts about floor trucks

Complete 28-page catalog describes 2-wheel hand trucks and dollies. Tells factors to consider when buying. Discusses capacity, dimensions, weights, how to order.—Nutting Truck and Caster Co.

Circle 235 on Reader Service Card

### How to Win the Race for Storage Space

That's the title of 16-page booklet on slotted angle storage racks. Tells you how to utilize most possible floor space without giving up access to stored items. Also describes drive-in and drive-through rack components for high-density storage of palletized loads.—Acme Steel Co., Fabricated Materials Division.

Circle 236 on Reader Service Card

### Wall chart on box closing

Full color wall chart illustrates the simplicity of box closing with a single strip of reinforced sealing tape. Measures 36" x 24", ideal for shipping room. Also

Continued on next page



# 4 NEW

## Nutting floor trucks

For More Production — Less Effort — Greater Safety



Fig. 912-334

### Safe High-Reach Order Picking

Operator's weight depresses spring loaded ladder for braking. Safety tread steps. Forward and side support with cross bar and extended handles.

### Easy Packing and Strapping

Grid top for easy passing of strapping beneath cartons. Foot operated stabilizer prevents rolling. Rocker type frame for safe load discharge. Available less wheels.



Fig. 517A

### Bigger pay loads with less effort

Especially built for strength without weight, this truck is made of aluminum alloy — structural type to handle heavy loads. Lightweight design means manpower is able to handle more frequent, larger loads.



Fig. 2452 E-AL

### Dollar Saving Jack and Skid System

Nutting Hook-'N-Go jacks and skids for mobile storage are low in initial cost . . . eliminate expensive flooring and re-handling . . . provide instant mobility of stored materials. One jack services many skids.



Fig. 2418 Jack

Fig. 422 Skid

These 4 new standard models will boost production with less effort, greater safety . . . based on lighter weight and design for special need. They are examples of many other Nutting standard models for special applications. The Nutting line is complete . . . over 1,000 standard styles — thereby, more often than not, saving you the high cost of made-to-order models.

Want more information? Please write — use reader service card or coupon below.

**---NUTTING TRUCK AND CASTER COMPANY---**

154 West Division St. — Faribault, Minnesota

Please send literature on:

☐ Fig. 517A      ☐ Fig. 912-334      ☐ Fig. 2452E-AL

☐ Fig. 422 and 2418      ☐ Casters

☐ Other for handling \_\_\_\_\_

☐ Send Catalog 59G, illustrating variety of trucks and casters

NAME AND TITLE \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

Circle 58 on Reader Service Card

# MOTO-TRUC

## Leads the field in "Walkie" Pallet Trucks



### The toughest little walkie in the business

■ Built to handle more loads at less cost, the MOTO-TRUC walkie pallet trucks is the most popular model on the market. Its ultra-simple construction means far less maintenance and greater dependability. Yet, in spite of its small size, it's built to take rough treatment and will give years of useful service on the severest jobs. Moto-Truc walkie pallet trucks are available in 4,000 and 6,000 pounds capacity models with fork dimensions to fit any load.



12409 Taft Avenue  
Cleveland, Ohio

Circle 54 on Reader Service Card

## USEFUL LITERATURE

lists recommended storage and handling procedures, carriers authorizing this type of closure, and applicable federal specifications.—Atlantic Gummed Paper Corp.

Circle 237 on Reader Service Card

### What it takes to containerize

The equipment you need for containization is explained in a short booklet just off the press. Describes special containerized truck bodies, rail flat cars, and straddle carriers for handling the containers. Introduction tells why containerize.—Pullman-Standard.

Circle 238 on Reader Service Card

### Hand trucks get fancy

Hand trucks with clamps for handling specialized loads are described in this booklet. Lists several 2-wheel trucks and uses for each. Full specifications.—Food Machinery and Chemical Corp.

Circle 239 on Reader Service Card

### Lift trucks: lease or buy?

Pocket-size booklet tells which is best for you. Lists advantages both ways to help you decide. Includes leasing charges for 2-year, 4-year, and level plans.—Automatic Transportation Co.

Circle 240 on Reader Service Card

### Truck fleets: lease or buy?

Second edition. An analysis of truck transportation costs. Compares merits and demerits of truck leasing vs owning. Includes data from survey of more than 4,500 firms. Tables help you figure costs. Various leasing plans explained.—Foundation for Management Research.

Circle 241 on Reader Service Card

### Makes movements easy

Magnesium pallet dollies are subject of 1-page descriptive sheet. It tells how they can save you money by making movement of goods easy without lift trucks. Includes specification chart for several sizes.—Brooks & Perkins, Inc.

Circle 242 on Reader Service Card



...for a sound lift  
in handling loads



**INDUSTRIAL**

Bond 36-A Series Double Ball Race Semi-Steel Swivel Caster. Other Single Ball Race Semi-Steel Swivel and Rigid Casters available.



Bond 40-A Series Double Ball Race Structural Steel Swivel Caster. Companion Steel Rigid Casters in stock.



Bond 51-A Series Pressed Steel Rigid Caster.



Bond 50-A Series Single Ball Race Pressed Steel Swivel Caster. Also 52-A Series Double Ball Race Pressed Steel Swivel Caster.

**INSTITUTIONAL**

Bond 60-A Series Light Duty Plate-Type Escalator Ball Race Swivel Caster. Companion Rigid Casters available.

Bond 64-J Series Light Duty Stem-Type Escalator Ball Race Swivel Caster.

Write, wire or phone for full facts on the entire line of Bond Industrial and Institutional Casters.

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MACHINE COMPANY**  
324 Penn St., Manheim, Pa.

Circle 14 on Reader Service Card

HANDLING & SHIPPING

## Cargo Control Systems

Complete systems for holding cargoes in place in trucks, railroad cars. Employ belt rails with bars, beams, straps. For installation by vehicle user or at factory where rolling-stock is built. Also tie-downs employing straps, chains, cables, for tensions up to 30 tons. Catalog 700 gives complete engineering data, tells how to order.—Aeroquip Corp.

Circle 100 on Reader Service Card

## Truck Cargo Braces

How metal cargo braces serve as dunnage in trucks and trailers is presented in series of bulletins illustrating components and installation.—Load-Holder.

Circle 101 on Reader Service Card

## Container Size Nomogram

Nomogram in current "Sparks from Stone" helps you choose corrugated container dimensions that make container most economical to produce.—Stone Container Corp.

Circle 102 on Reader Service Card

## New Dockboards

Two bulletins show advantages of adjustable-lip mechanical dockboards. Bulletin SB 810 shows how adjustable lip makes adjustment to truck height easy. Bulletin SB 811 explains why 7 ft. wide dockboard enables you to get full benefit from 93-in. wide highway carriers.—Kelley Co. Inc.

Circle 103 on Reader Service Card

## Straddle Carriers

Booklet of pictures shows versatility of straddle carriers. They handle boats, missiles, piggy-back trailers, tanks, unit load containers, pipe, concrete, steel, etc. Capacities range from 12 tons to 40 tons.—Travelift Div., Drott Mfg. Corp.

Circle 104 on Reader Service Card

## Flat-Top Pole Buildings

Flat-top pole buildings provide 21 ft. x 21 ft. interior bays, cost little. Bulletin W-390 explains why these standard structures are economical for warehousing and storage, gives specifications. Drawings reveal construction details.—The Koppers Co., Inc.

Circle 105 on Reader Service Card

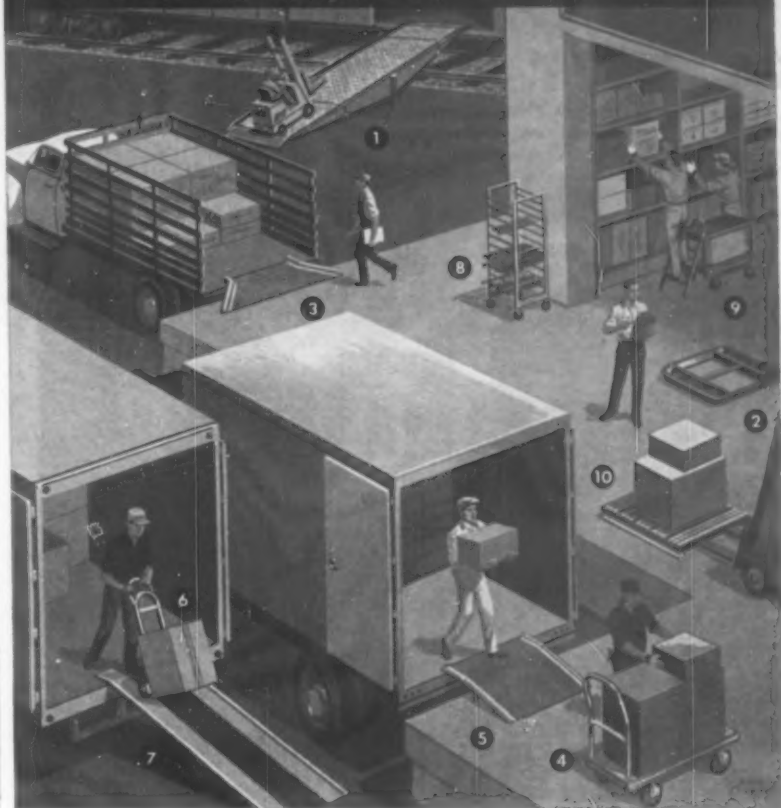
## Staplers and Stitchers

All kinds of staplers and wire stitchers, representative of maker's line, shown in 12-p. folder. Ranges from common desk stapler to multiple-head power stitchers. Condensed information on staple sizes, capacities, speeds, power requirements, etc.—Bostitch.

Circle 106 on Reader Service Card

continued on next page

# 10 REASONS WHY B & P IS GROWING, GROWING, GROWING!



- ① **FOLDING YARD RAMP:** Takes half the space—moves easier—stores in less space.
- ② **PALLET DOLLY:** For a short haul—a must for production lines or warehousing.
- ③ **DOCKBOARDS:** Built especially for *your* dock—one piece curb with forged ends.
- ④ **PLATFORM TRUCK:** Light—eye appealing—rugged.
- ⑤ **ECONOBORD:** Carries loads to 4800 lbs.—truckers special.
- ⑥ **HAND TRUCKS:** Light—rugged—versatile—forged ribbed nose plate.
- ⑦ **PORT-A-RAMP:** No dock needed—deliver anywhere—safety all weather walk.
- ⑧ **ECONORAK:** All purpose—assemble yourself—economical.
- ⑨ **STOCK PICKING TRUCK:** Reaches high areas easily, safely—ladders available for your present trucks.
- ⑩ **PALLET:** Built to *take it*—assemble yourself (if you wish).

Dealers coast to coast to—survey your problems—analyze your needs—recommend proper equipment

Write today for more information  
on any of the above products.



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Circle 15 on Reader Service Card

## USEFUL LITERATURE

### Measure Your Handling Efficiency

"Management Guide to Productivity" will help you expose unwarranted handling expense and prove it to management. The book is based on seven efficiency cost ratios developed by Yale & Towne in cooperation with Professor James R.

Bright of the Harvard University School of Business Administration.—Yale Materials Handling Division of the Yale & Towne Manufacturing Co.

Circle 107 on Reader Service Card

### Uses of Tape

How industry uses pressure sensitive tape for protecting, sealing, holding, packaging shown in photos. Also dispensing and applying machines, table of physical properties for various kinds of tape, in Folder P-MNF (1202) P.L.—Minnesota Mining & Manufacturing Co.

Circle 108 on Reader Service Card



from the ground UP  builds it better...

Colson pallet trucks the finest you can buy... for quality, ease of operation, and money-saving efficiency. From casters to completion, each part is carefully designed and precision engineered.

Colson's new 2500 and 4000 lb. capacity single and double face hydraulic leverlift pallet trucks feature exclusive roll-o-cam entry device which eliminates sliding and skidding. Spring-counter balanced handle, simple hydraulic pump and special design make them the easiest handling pallet trucks available. Write for free catalog to find out how you can save when you buy only once by buying the best... Colson!

**THE COLSON CORPORATION** 7 S. Dearborn St. • Chicago, Ill.  
Plants: Jonesboro, Arkansas; Somerville, Massachusetts; Elyria, Ohio; Toronto, Can.



Circle 17 on Reader Service Card

### Makes Boxes as Needed

Compact Rite-Size Corrugated Box Maker slits, scores, prints, slots in one operation. Handles single or double wall sheets to 400 lb. test. Makes boxes from 3 x 3 x 3 to 36 x 18 x 18, either tape joint or stitch flap. Change dimensions in 90 seconds. Revised catalog gives full information on production rates, operation.—Colt Packaging Machinery Co.

Circle 109 on Reader Service Card

### Slotted Angle Shelving

New slotted angle shelving presented for first time in 100-page general catalog. (No. 100-K) covering all Lyon products for industry.—Lyon Metal Products, Inc.

Circle 110 on Reader Service Card

### Bagging 60 Tons an Hour

Photographs in 8-p. folder show how automatic bag-filling machine packages 400 to 500 tons of free-flowing material a day. Examples include chemicals, feeds, fertilizers. Accuracy is plus or minus 4 oz. per 100 lb.—Kraft Bag Corporation.

Circle 111 on Reader Service Card

### Tailgates Lift and Lower Loads

Hydraulically powered tailgates for trucks and trailers. Five basic designs (9 series), and also a combination power and dump gate. Catalog PG-6005 shows how to install and use these gates, PTO and electric powering, all specifications.—Young Spring & Wire Corporation.

Circle 112 on Reader Service Card

### Packaging Fragile Products

Tricks of the trade in packaging fragile products given in special issue of Hinde & Dauch Package Laboratory News.—Hinde & Dauch Div., West Virginia Paper and Pulp Co.

Circle 113 on Reader Service Card

### Exhaust Purifier

Eleven case histories tersely told in word and picture explain how Oxy-Catalyst fume reducers permit use of gasoline or LP-gas powered equipment in enclosed areas.—Oxy-Catalyst, Inc.

Circle 114 on Reader Service Card

### Wire Pallet-type Containers

Four-page folder shows construction features, types, full specifications of standard size and junior wire-mesh "Palletainers." Offers free trial.—Union Steel Products Co.

Circle 115 on Reader Service Card

### Land-based Cargo Container Cranes

"Dravo Dockmaster Containers Cranes," Bulletin 248 cites general advantages of

two types. Pictures and descriptions of both. For use where containers move directly between ships and railcars or truck trailers and where containers move between ships and a storage area beneath the span of the crane. All-welded traveling structures of mantrolley design. Lifting capacities up to 30 tons.—*Dravo Corp.*

Circle 116 on Reader Service Card

### Fork Truck Specification Chart

One chart gives standard specifications for 43 models of Towmotor fork lift trucks, 4 tractors, an electric pallet truck. Condensed easy-to-read sheet folds to 8½ x 11 in.—*Towmotor Corp.*

Circle 117 on Reader Service Card

### Mechanization in Terminal Warehouse

Use of mechanized and automatic equipment in highway freight terminal. Bulletin 34 gives details as case history with diagrams, pictures to show system and equipment.—*Jervis B. Webb Co.*

Circle 118 on Reader Service Card

### Steel Skids, Pallets, Skid Boxes

Steel skids, rigid and collapsible skid boxes, pallets, and drum racks which also serve as pallets described in 20-p. booklet "Republic Steel Material Handling Equipment." Provides standard specifications, explains construction details, optional features.—*Republic Steel Corp.*

Circle 119 on Reader Service Card

### Run Lift Truck from Platform

Operator rides up on platform of lift truck, has full control of truck movement in any direction from platform. This speeds stocking and stock-picking from racks and shelves. Bulletin 608 describes use and safety features, gives specifications, and photos of truck and its controls.—*Barrett-Cravens Co.*

Circle 120 on Reader Service Card

### Industrial Truck Costs

To help you make your own study of your industrial truck costs, Bulletin 6527 provides forms and data. Graphs aid in estimating all cost factors. Provides for specific comparison of propane-powered trucks with electric-powered trucks.—*Exide Industrial Div., Electric Storage Battery Co.*

Circle 121 on Reader Service Card

### Automatic Bag Palletizer

New automatic bag palletizer handles bags fast, but gently. Construction, operation described in 10-p. bulletin. Includes diagram of floor space requirements. Machine tested with all kinds of bagged products, including cement.—*Food Machinery & Chemical Corp.*

Circle 122 on Reader Service Card



**E**xcellent recommendation. You'll never find a transport service better equipped for handling electronic systems. Fernstrom *knows* electronics, industrial photographic equipment, displays and exhibits, and other tough-to-handle products. Crews are especially trained, and equipment is specifically designed to assure exceptional and expert handling from point of origin to point of installation. Dependability . . . unsurpassed (and *verified*). Experience . . . fifty years of it, and keeping pace with the minute-by-minute demand for specialized transport service.



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5600 North River Road, Rosemont, Illinois

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FOR EVERY JOB REQUIREMENT

# MAGLINER 4-WHEEL TRUCKS

• Magnesium • Aluminum

Lightweight!

Maneuverable!

Ruggedly Built!



**WHICH OF THESE MAGLINER TRUCKS WILL SAVE YOU MONEY?** *Lightweight Magliners for heavyweight jobs—that's the trend!* Plants . . . warehouses . . . stores . . . delivery work—whatever the application . . . costs go down with Magliners on the job! Check into the money-saving advantages of Magliner 4-Wheel Trucks for your operation . . . get a Magline quotation before you buy.

Write for illustrated  
bulletin on any  
of above models



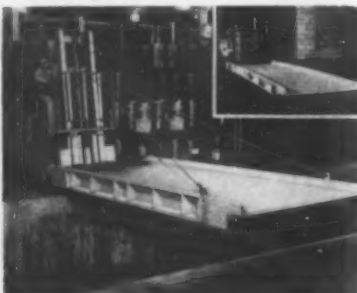
MAGLINE INC. • P. O. Box 278 • Pinconning, Mich.  
Canadian Factory: Magline of Canada, Ltd., Rexford, Ontario

Circle 46 on Reader Service Card

## NEW PRODUCTS

### Easy-to-move ramp

Standard industrial bridges span depressed rail spurs and other depressed areas in your plant, yet are compact and light



enough to be portable. Just position them with a fork truck as needed. Full range of sizes and capacities up to 24 feet and 16,000 lbs. Include safety curbs, flared ends, beveled edges. Other features optional.—Magline Inc.

Circle 123 on Reader Service Card

### Pallet loader saves labor

Rapidstak pallet loader transfers cases from conveyor belt onto pallets in any stacking pattern you choose. Adopts to



various case heights. Needs no setup time for production changes. One operator; simple pushbutton controls. Several models available.—Hansford Mfg. Corp.

Circle 124 on Reader Service Card

### Aluminum truck body comes in kit

Completely aluminum truck bodies come in kit form including sides, roof, front and rear ends, doors, as well as complete

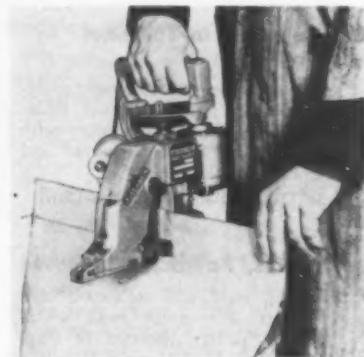


floor assemblies and optional steel rear frames. Floors, just added to kit, are laminated oak on steel cross members.—Lyncoach & Truck Co., Inc.

Circle 125 on Reader Service Card

### Closer speeds bagging jobs

Portable bag closer has greater capacity and versatility, and is designed to work



even in adverse conditions. Easy to use: needs no experience. Can be completely portable or mounted on suspension frame.—Dave Fischbein Co.

Circle 126 on Reader Service Card

### Where's the driver's seat?

A second set of controls on the elevating carriage lets the driver operate this electric truck even while atop a raised load. He can move forward or backwards, raise



or lower to any height, operate steering and brakes. Special Hy-Drive controls make this remote control operation possible on 4000 lb heavy duty narrow aisle truck.—The Raymond Corp.

Circle 127 on Reader Service Card

### Plywood box fully collapsible

Just fold this plywood pallet box down to 17 percent of its full size for empty return trips. Plywood sides are hinged at



the base to fold inward. Built-in pallet base gives 4-way access. Of Swedish design.—C. A. McGregor Ltd.

Circle 128 on Reader Service Card

### Heavy-duty feature on lift truck

The same machined slide planes used on heavy duty trucks are designed into 2,500 lb hand lift truck, improving fork



operation. Handles single or double faced pallets. Fork lengths 36, 40, and 48 inches. Pull handle operates pump for both-feet-on-the-ground lifting. Three-position pedal allows selection of lifting, lowering, or free handle pulling. Formed steel welded construction.—Revolator Co.

Circle 129 on Reader Service Card

### Trailers modernize fleets

Highway 66 truck trailers are 40-ft, tandem axle, aluminum exterior post trailers with 1-piece aluminum roof. Inside dimensions 93 x 97 inches. Optional fea-



Continued on next page

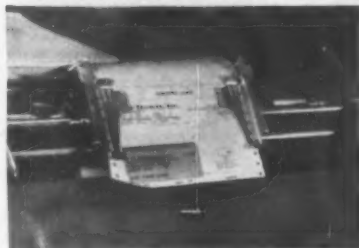
## Address MULTIPLE SHIPMENTS without this **COSTLY** **BOTTLENECK**

If you regularly address  
5 or more cartons per shipment

You might be shocked to find out how antiquated, repetitive methods in your shipping room are costing you money. Typing each label separately and attaching to carton is time-consuming—subject to frequent errors and mis-shipments.



## The Modern STEN-C-LABL\* Systems PROVIDE A TWO-WAY SAVING...



Typing unit STEN-C-LABLs attached to continuous form on tabulating machine.



Addressing direct to PANI-LABL on carton is fast and easy.

### 1 As a by-product of office procedure

Your present method of preparing your invoices, orders, bills of lading or shipping papers can also prepare STEN-C-LABLs at the same time. Whether you use manual or electric typewriters, electric billing or accounting machines, slave machines or various magnetic tape and punched IDP systems, there's a STEN-C-LABL to fit your requirements.

### 2 By making unlimited impressions direct to cartons, labels or tags

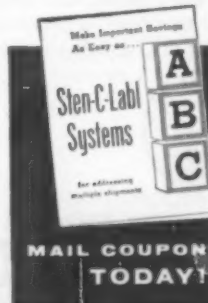
With handy squeeze-feed applicator, shipping department makes unlimited impressions direct to PANI-LABL printed on carton at no extra cost. Also addresses gummed labels and tags. Addressing is fast, neat, legible. Laborious, repetitive procedures are eliminated, preventing errors and mis-shipments.

**DURABLY MARKED AND PLAINLY LEGIBLE** at handling distance. A STEN-C-LABL address is sunproof and waterproof—becomes permanent part of carton. Reproduction is sharp and easy to read at handling distance.

### IF YOU HAVE A MULTIPLE SHIPPING PROBLEM

(regularly addressing 5 or more cartons per shipment), you may be able to save thousands of dollars with STEN-C-LABL. Thousands of present users are making substantial savings every year with a STEN-C-LABL System tailored to their requirements.

### FREE BROCHURE gives full details!



### STEN-C-LABL, Inc.

HSI-8, 1821 University Ave., St. Paul 4, Minn.

Yes, I'd like to know more about saving with STEN-C-LABLs.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

\*Registered U.S. Pat. Off. The term STEN-C-LABL is the trademark and exclusive property of STEN-C-LABL, Inc. All STEN-C-LABLs are manufactured by STEN-C-LABL, Inc., St. Paul, Minnesota, under U.S. Patent No. 2,771,026. Other patents pending. Also available in Canada and other countries.

Circle 62 on Reader Service Card

**YOU CAN DEPEND ON**

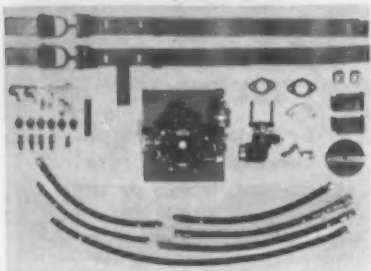
**BEAM**

**LP-Gas**

**CARBURETION EQUIPMENT**

- Quick and simple to install
- Instant Starting
- Requires no priming or choking

Beam specializes in  
**COMPLETE LP-GAS SYSTEMS**  
 in "Kit" form, ready to install



Beam Kits include:

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 CLAMPS, ETC.**

Hundreds of other Beam products, accessories and parts are stocked throughout the country.



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 Export Division: 354 S. Spring St., Los Angeles 13  
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 Ozone Park 16, Queens  
**FLORIDA**  
 2500 N.E. 48th St., Pompano Beach  
**TENNESSEE**  
 2020 Airways Blvd., Memphis 4  
**ILLINOIS**  
 1414 S. Michigan Ave., Chicago 5

Circle 9 on Reader Service Card

## NEW PRODUCTS

tures include bulkhead reinforcing for piggyback, plastic skylights, outer slide adjustable tandems, and overhead rear doors.—Highway Trailer Industries, Inc.

Circle 130 on Reader Service Card

### For easy skid handling

Skid trucks with 1,100, 2,400, and 4,800 capacities have under-load wheel design for full support and stability. All-steel construction. Optional rubber, nylon, polyurethane, or aluminum wheels, as well as welded-on solid platform, available for the two heavier models.—Stokvis Multiton Corp.

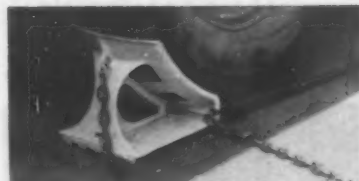
Circle 131 on Reader Service Card

### ANYBODY'S PRIVILEGE

You may use the Reader Service Card regardless whether or not you are the subscriber to whom the magazine was addressed.

### Locks vehicles at dock

WB-15 heavy duty wheel block holds trucks in position at loading docks. A  $\frac{3}{4}$ " or  $\frac{1}{2}$ " chain is anchored in pavement near dock, and attached to wheel

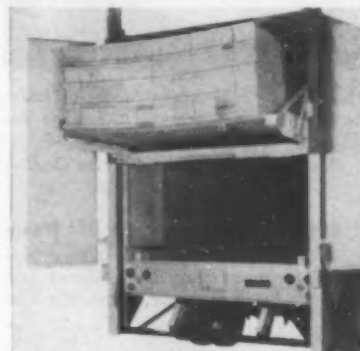


block. Pulling chain taut secures truck; only negligible force is exerted on chain. Calumet Steel Castings Corp.

Circle 132 on Reader Service Card

### System Loads Trucks Fast

Pallets that flex to grip load without straps, and roller tracks on the truck



body to support the pallets are the main parts of the Relae system for faster load-

## modernize with Hydro~~Le~~tric

### A GREAT NAME IN LIFT TRUCKS

- Two driving wheels instead of one
- Braking with handle in any position
- Automatic parking brake (optional)
- Sealed alloy gears instead of chains
- Sealed ball-bearing rollers in masts
- 100% more steering ease with two wheel drive
- Power unit removal complete in 20 minutes
- Greater tire capacity equivalent load ratings

• Write for Bulletin KHL



A TRUCK FOR EVERY PURPOSE AND MATERIAL



**LIFT TRUCKS, INC.**  
 CINCINNATI 14, OHIO



Circle 43 on Reader Service Card

ing. Special chutes at the dock, or fork lift trucks, or elevating mechanism mounted on truck, load pallets into truck van. Using chutes you load the truck with one man in 3 minutes, unload in 10; with fork trucks it takes 30 minutes to load, 20 to unload.—Kappan Sales Co.

Circle 200 on Reader Service Card

### Short Truck, Tall Lift

Three-stage nesting mast for maker's line of narrow aisle fork trucks boosts elevation range, retains low profile. Trucks enter highway trailers, go through low doorways, will lift 4,000 lb. to 180 inches.—Raymond Corporation.

Circle 201 on Reader Service Card

### Loose Label Printer

Markem 45AG neatly imprints all types of tags and labels at speeds to 60 a minute. Imprint quality consistent through an



entire stack. Type easily changed. Sizes to 6-9/16" x 2-7/16".—Markem Machine Co.

Circle 202 on Reader Service Card

### Compact Fork Lift Trucks

New electric fork lift trucks are only 33-3/4 in. wide. They fit light to medium load-capacity jobs in grocery warehousing,



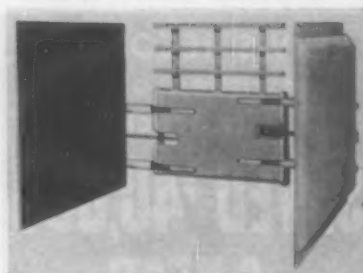
large retail stores, light industry, boxcar loading. Three models in RST series have 2,000, 2,500, and 3,000 lb. capacities. RST-20 illustrated, has 68-in over-all mast height, stacks 105 in. high. Each model has 3 wheels, pivots at center of load axle because one wheel rotates clockwise

while other turns counterclockwise. This saves 5 in. of aisle space. Foot controls for lift, tilt, travel, and braking, with accelerator and brake operating from one pedal. Dual tilt rams give extra support to uprights for safety. Features Class H silicone-insulated motors, quick access to batteries from side or top. Many parts interchangeable with those for maker's walkies.—Automatic Transportation Co.

Circle 203 on Reader Service Card

### Carton Clamp Attachment

Special protection for handling fragile cartons is a feature of company's new design carton clamps. Carton arms for



the lift truck clamp are of reverse-cantilever design. Clamping force is initially applied to the unitized load by the for-

continued on next page

FOR MATERIALS

# On The Move!

**Universal IS YOUR ANSWER FOR TOP ECONOMY & DEPENDABILITY**

FOR *Vertical* MATERIAL HANDLING

Universal Bucket Elevators are engineered and designed to meet the specific needs in your plant, available for capacities up to 3,750 cubic feet per hour at any exact height. Available in standard steel, galvanized or stainless, Universal elevators wear longer and elevate your materials efficiently and smoothly. Universal Specialists in the Manufacture of Bucket Elevators offers you:

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BOX 133 CEDAR FALLS, IOWA

Circle 65 on Reader Service Card

SERVIS RECORDERS  
installed on 17  
Lift Trucks

**SAVED \$40,000  
A YEAR**



**EVERYBODY**  
*was happy!*

**WORKERS** no longer complained about discrepancies in pay checks—they knew the Servis Recorder work-record was right!

**OTHER OPERATING DEPTS.** and even the training school received several of the lift trucks no longer needed on their previous assignments due to the new efficiency!

**THE DEPT. SUPERVISOR** received a cash award for efficiency!

**MANAGEMENT** . . . well, \$40,000 savings ain't hay! Management thinks Servis Recorders are wonderful—in fact they have bought 30 more! (Name of this company furnished on request.)

**AND you?**



You can profit, too, with Servis Recorders. Attach them to any equipment that moves including production machinery, lift trucks, switch engines, company cars or trucks. They record charts showing operating time and idle time of all equipment. With these records you can declare war on inefficiency!

Write for illustrated literature.

**THE SERVICE RECORDER  
COMPANY**

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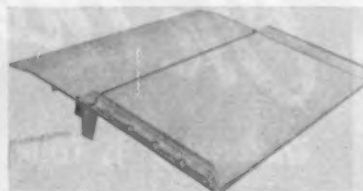
## NEW PRODUCTS

ward edge of the arm. The forces then transfer through an equalizer plate. Contact surfaces remain parallel at all times, eliminate need for toe-in or camber. The clamping force is instantly and uniformly transferred over the entire clamping surface of load the instant you engage it. Design features include thin, tapered arms; built-in side shifting, thin profile for less lost load center; and interchangeable contact surfaces. Contact pads come in 14 standard lengths to meet varying load requirements.—*Cascade Mfg. Co.*

Circle 204 on Reader Service Card

### Bridges Deck-to-Door Drop

Extreme differences in levels of loading dock, and of the truck or railcar floor overcome by ramp hinged to aluminum



dockboard. Comes in 48 sizes. Load capacities range from 5,000 lb. to 9,000 lb.

Pull pin and separate ramp from dockboard. Quickly adjusted or moved by one man. Can be supplied with fork lift brackets, adjustable holding bars, abrasive non-skid surface.—*F. H. Langsenkamp Co.*

Circle 205 on Reader Service Card

### Staggered Line Won't Jackknife

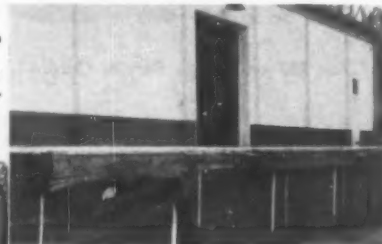
This low pressure, live roller conveyor simplifies problems associated with accumulation of cartons and crushable com-



modities. Company says even badly staggered commodities can be accumulated under pressure on this new conveyor without jackknifing. The pressure exerted on the accumulated commodities is only 3½ percent of commodity weight instead of

## SOLVE IT . . .

*The Easy Way* \*



with \*  
**Durable Mat Company**  
**DOCK BUMPERS**

Dock timbers not only require frequent replacement, BUT they also transfer impact force to the dock you desire to protect.

Durable Mat Company Loading Dock Bumpers need no attention — they are **guaranteed for five years** — AND — impact tests prove 81% absorption.

**Result** — reduced maintenance expense to dock, building foundation, and equipment.

Many economy minded industries and truck lines have installed Durable Mat Company Bumpers.

Why don't you?

Make sure they are **Guaranteed Durable Mat Company Bumpers.**

**Durable MAT COMPANY**

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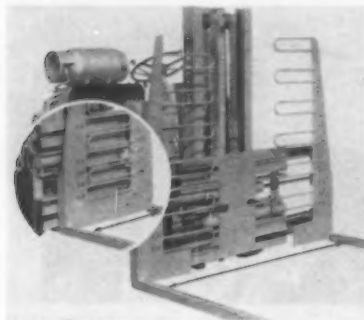
Circle 24 on Reader Service Card

usual 12 percent. And the new conveyor handles units with a wide range of mixed sizes and weights. When the accumulated commodities are released, the entire line moves forward immediately. No manual adjustment of the belt actuators is needed. Standard says that only 50 percent of the usual horsepower drives this live roller. Controlled Pressure Conveyor comes in these widths: 10½", 14½", 16½", 20½", 26½", 32½" and 38½".—Standard Conveyor Co.

Circle 206 on Reader Service Card

### Forks Grip, Lift

Fork-and-clamp attachment works with paper pallets. Side-shifting forks lift and also clamp tight on bottom row of cartons.

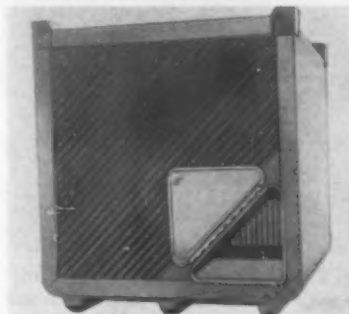


General Purpose Clamp has 45-in. forks that expand laterally from 30 to 69 in.

They'll handle carton loads from 34 to 46 in. stacked in T-formation on paper pallets. Five-foot backrest handles high loads.—Towmotor Corporation

Circle 207 on Reader Service Card

### Water Freight Module



Speeds turnaround in water transport. Tote Bin 8 ft. cube, for bulk handling by barge or ship. Has maker's standard features, and new ones for fill and empty.—Tote System, Inc.

Circle 208 on Reader Service Card

### LP-Gas Filter & Solenoid Valve

New Filterlock FL-418, combination LPG filter and solenoid valve, has extra large coil for better service when hot

continued on next page

Circle 31 on Reader Service Card



Reduce  
Shipping Dept. costs!

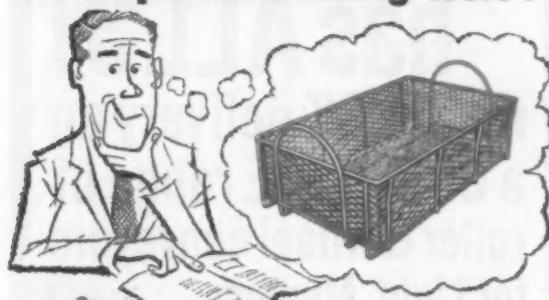


FOR UNGUMMED LABELS TO  
CANS, BOTTLES, CARTONS.  
Fast! Efficient! Economical!

**FREE**  
TRY IT FOR 10 DAYS  
No Obligation  
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## Looking For A Way to cut small parts handling costs?



### EEZY-STAK BASKETS STOP EXTRA HANDLING, SPEED PARTS PROCESSING... REDUCE COSTS!

Here's how one manufacturer solved costly, time-consuming, small parts handling. Using EEZY-STAK standard wire baskets, a complete series of parts transfer operations was eliminated. Result: Five production processes now performed in one basket—degreasing, drying, pickling, rinsing, cyaniding—plus storage, without parts removal!

EEZY-STAK baskets have the exclusive, patented interlock handle, for easy stacking and compact storage. Open mesh construction. Full visibility... quick drainage... clean! From initial production to final assembly, EEZY-STAK baskets put small parts handling on an economical, low-cost basis. Cut Costs! Investigate the advantages of EEZY-STAK baskets for your plant!

Write today for Bulletin No. B-54 to Wire & Iron Products Inc., 1720 Sixteenth Street, Detroit 16, Mich.



Circle 69 on Reader Service Card

## NEW **KASE KING**

Fully Warranted  
TUBULAR STEEL  
HAND TRUCKS

MODEL SHOWN

**\$21<sup>45</sup>**

OTHER MODELS FROM \$11.95

LIGHT WEIGHT  
HIGH UTILITY  
JOB ENGINEERED  
INDUSTRY STANDARD

Move it With  
**AMERICAN**

See your AP Distributor  
...or write for a free hand truck  
folder—learn how these new trucks  
can work for you—at a profit

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4200 WISSAHICKON AVENUE • PHILADELPHIA 29, PA.  
A division of VAN NORMAN INDUSTRIES INC.

Circle 2 on Reader Service Card

Circle 30 on Reader Service Card



Flash Box Opener  
Push Button Safety Knife  
Lewis Safety Knife  
Flash Carlen Staple Remover  
Flash Twine Cutter  
Vest Pocket Knife

## SAFETY KNIVES

Write for complete catalog:  
**FLASH MANUFACTURING COMPANY**  
305 Plane Street, Newark 2, N. J.  
Seal-O-Matic of Canada, 2 Matilda St., Toronto 8

## NEW PRODUCTS

weather boosts pressures. Mounting filter with valve reduces weight 20 percent, eliminates fittings. New model has



forged, recessed center plate to fit coil housing, "O" ring seal at fuel inlet bolt, and phenolic impregnated filter element. It operates in any position.—*Beam Products Mfg. Co.*

Circle 209 on Reader Service Card

### Crane Unloads Trucks

Boom of heavy duty mobile crane can enter truck van or box car to unload heavy items. Maneuverable in close quarters, good for lifting material over obstacles, and general lifting and transporting jobs. Rubber-tired industrial truck

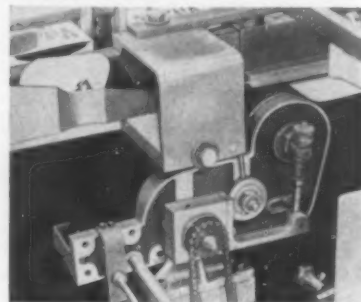
mounts crane. Two models, XH with 5, and YH with 10 ton capacity. Available with telescopic boom and fail-safe devices



to prevent over-topping or over-swinging right or left. Hydraulic controls and action, 180° boom swing. Operates quietly.—*Silent Hoist & Crane Co.*

Circle 210 on Reader Service Card

### Compact Imprinter



Cartoning machine attachment imprints control numbers, codes, prices, etc., on the bodies or flaps of folding cartons.

compare size  
compare capacity  
compare price

... of any dockboard  
with  
**LANGSENKAMP'S**  
ORIGINAL

## Super Strength Aluminum DOCK PLATE

12,000 lbs.  
capacity...

Light...  
one man  
lifts it  
easily!

24" X 48" SIZE

STILL AS  
LOW AS

**\$49<sup>00</sup>**

- 9 styles — over 65 stock sizes.
- Special alloys give extra strength and durability to meet today's increased freight handling requirements.
- Exclusive — optional, abrasive safety surface gives permanent non-skid protection even if well

Write today for complete catalog and prices.

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## Only BUSCHMAN has ALL 3! IN-STOCK delivery on a COMPLETE range of roller & wheel conveyors for Light, Medium, & Heavy Use

**LIGHT** — #138 Rollers. Rust-resistant. For low-cost carton handling. 12" to 18" widths.

**MEDIUM** — Aluminum, steel; wheel or roller. QUICK-EEZ couplings. 12", 15" & 18" widths.

**HEAVY** — #190 Rollers. High capacity handling. 15", 19" & 25" widths.



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**Buschman CONVEYORS**

Complete Conveyor Systems for all Types of Industries—Engineered, Manufactured, Installed  
Representatives in Principal Cities

The E. W. Buschman Company, 4552 Clifton Avenue, Cincinnati 32, Ohio

Circle 16 on Reader Service Card

HANDLING & SHIPPING

Imprinter fits all makes of automatic cartoners. Comes in two basic styles. The 1270 imprinter applies the imprint from above, and the 1280, from below. Both are automatic, do not interfere with pushers or other parts of the cartoning machines. Full annular registration simplifies precise placement of imprints in any desired location.—Adolph Gottscho, Inc.

Circle 211 on Reader Service Card

### Racks for Boxes

Makers of Plastiboxes offer storage racks for them. Available as free-standing double or single wall units. Handle up to



224 boxes in combinations. Boxes readily removed from racks.—G. B. Lewis Co.

Circle 212 on Reader Service Card

continued on next page

Circle 68 on Reader Service Card

## TRIAL SAMPLES

### Of World-Famous WHITMORE'S Lubricants NOW IN AEROSOL SPRAY-ON CANS!



#### HANDI-LUBE LIQUID GEAR COMPOSITION

For open gears, sliding surfaces—exclusive formulas eliminate metal to metal contact, keep wear on the lubricant not the metal—no breakdown even after prolonged use under water—available for every climatic condition—packaged in handy 16-oz. aerosol spray-on containers or in bulk containers—send for a free trial sample.



#### WIRE ROPE SPRAY LUBRICANT

Exclusive formulas for lubricating and protecting wire rope, chain, springs. Penetrates to the core of wire rope minimizing internal friction and increasing usable life up to 300%—special protective qualities absolutely eliminate corrosion—non-gumming qualities reduce "carry-back"—packaged in handy 16 oz. aerosol spray-on containers or in bulk containers—send for a free trial sample.

#### 65 YEARS OF LEADERSHIP LUBRICATING THE FOLLOWING:

- Open Gears, Dipper Sticks, Cams
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- Speed Reducers



Est. 1893

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LUBRICATING ENGINEERS

CLEVELAND 4, OHIO, U.S.A. PHONE: VULCAN 3-7272



**Eliminate trips to the scale, prevent overloads with a Martin-Decker Lift Truck Weight Indicator in the cab!**

Easy to install, easy to set, easy to read! Full tare adjustment to manually zero out weight of forks, pallets, boxes, etc. Save more than its low cost in a single inventory! Save 20% to 40% (actual time-study records prove it) on labor and truck wear due to needless trips to a stationary scale. Eliminate errors in receiving. Get what you pay for by double-checking on the lift truck weight indicator while material is in transit to or from loading dock or warehouse. Write for applications to your operations! Ask for Technical Brochure T-88 for full description.



**MARTIN DECKER**

Precision Pressure Instruments  
Testing—Weighing—  
Load and Force Measurement

MARTIN-DECKER CORPORATION • 3431 Cherry Avenue, Long Beach 7, California

Circle 51 on Reader Service Card

August/September 1961

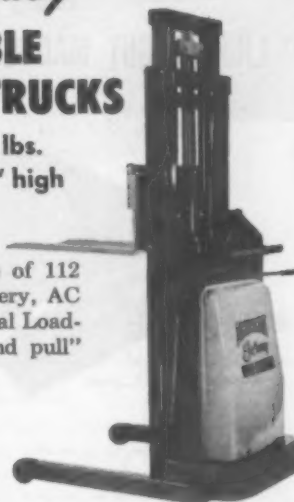
## AP Safeway

### PORTABLE ELEVATING TRUCKS

**Raises 2000 lbs.  
Up To 10' 10" high**

from **\$190<sup>00</sup>**  
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A Full Range of 112 Models—Manual, Battery, AC or Air Powered. Optional Load-Jockey takes "push and pull" out of moving loads.



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MODEL A


## FOR LOW COST MATERIAL HANDLING



MODEL B



MODEL C



EXPENDABLE

USE...  
**BIGELOW-GARVEY COLLAPSIBLE TIGHT-CORNER PALLET BOXES**  
**THEY'RE REUSABLE**

- Economical
- Safe and Neat
- More Convenient
- Quickly Assembled
- Handles up to 5000 lbs.
- Collapsible When Not in Use
- Specially Made For Your Needs

Over 33 Years Material Handling Experience

BRANCHES: ATLANTA, CHICAGO, CINCINNATI, KANSAS CITY, KENTUCKY, ST. LOUIS, ST. PAUL, TAMPA, WASHINGTON, D.C.

Write for complete details and prices to...

**BIGELOW-GARVEY**

lumber company

224 W. HURON STREET - CHICAGO 10, ILLINOIS

## NEW PRODUCTS

### Power Hand Truck Climbs Stairs

Two-wheeled electric Stair Cat climbs up and down stairs with 500 lb load. One man guides it. You load the truck, wheel



it to the stairs, position it for powered movement. Braking is automatic; there's no movement without power. Plugs into any 115-volt outlet. Comes with 10 ft. cord.—*New Design & Development Corp.*

Circle 213 on Reader Service Card

### 30 Tons with Ease

N600A Straddle Truck carrier features all-hydraulic lift system. Has 2 pumps—one powers the load lift, the other the

shoe swing and steering. Full-flow hydraulic oil filter in tank fill tube con-



tinuously filters all oil as it goes through the system.—*Hyster Company.*

Circle 214 on Reader Service Card

### Versatile Packaging Material

It's easy to adapt Sus-Rap cushioning to complex packaging needs. Example 1 shows use to provide both a supporting



core and wrap-around cushion for electric motor component. In example 2 fiberboard cushions are slotted, to hold, sepa-

**magcoa**

THE OLDEST NAME IN  
**LIGHTWEIGHT MAGNESIUM DOCKBOARDS**

CONTINUOUS GRIP

YELLOW CURB E-Z GRIP

BEVELED EDGE

CHECKERED PLATE

SAFETY SPAN

The new E-Z Grip continuous one-piece extruded Safety Curbs provide the strongest, safest guard rails you can have on your dockboards. Truck or rail — with Magcoa you have the best.

### MAGNESIUM COMPANY OF AMERICA

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Hialeah, Florida  
TUxedo 7-8117

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## EASY TO AFFORD

*New high-lift stacking truck that's priced right ...built to work fast, efficiently and economically*



For economy-producing operation, this high-lift Barrett stacking truck can't be beat. Goes everywhere — into congested areas, narrow aisles. Amazingly short turning radius, unsurpassed stability with triangle-type 3-wheel floor contact. Electrically operated by new, single-package gear drive. Write for free copy of TTR Bulletin 599.

### BARRETT-CRAVENS COMPANY

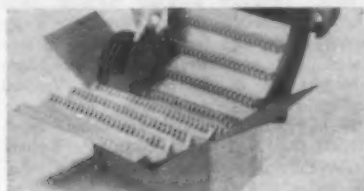
642 Dundee Road, Northbrook, Illinois

**FIRST IN AUTOMATED MATERIALS HANDLING**

Circle 11 on Reader Service Card

HANDLING & SHIPPING

rate, and cushion discs. Maker offers service of developing ways to package



products in this cushioning.—Vanant Company, Inc.

Circle 215 on Reader Service Card

### Remote-Control Lift

Pushbutton control box, normally mounted on wall, permits remote operation of hydraulic truck-loading platform



lift. The box is connected to a 16-ft. extension cord. Platform, 8 ft. sq., has

continued on next page

Circle 27 on Reader Service Card

## Handling Papers "ON THE MOVE"?

Then this is for you!

## NEW CLIP/DRAWER

DOES 3 JOBS IN 1



PRICED  
AT ONLY  
**\$7.95**

★ It's A Clipboard—Equipped with extra strong steel clip for bulky papers!

★ It's A Portable Desk—Smooth, large, outside writing area for extra convenience!

★ It's A File Drawer—Contains a handy drawer for invoices, bills, papers of all kinds!

MADE OF STRONG, LIGHTWEIGHT PLASTIC WEIGHS ONLY 1½ LBS.

MEASURES A COMPACT 10" X 14" FOR EXTRA EASY HANDLING

Order Yours Today!

Free Trial Offer—Use Evans Clip-Drawer for 10 days—if not delighted, return it and your money will be refunded.



**Evans Specialty Company, Inc.**

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## COLUMBIAN

NYLON-DACRON



### FEATURE 5-1 SAFETY FACTOR

The safe "working load" capacity of each DU-MOR SLING is sewn into the outer webbing . . . and represents but 1/5th of the actual "breaking strength."

In addition to this tremendous safety factor, yet another may be added upon request. The inner load bearing threads may be colored to act as a flag in case the outer webbing is cut or frayed in any manner.



ONE MAN  
CAN HANDLE  
THESE LIGHT, SAFE,  
FLEXIBLE, SIMPLE  
DU-MOR SLINGS

Know more about DU-MOR.  
Write for free brochure, TODAY!



**COLUMBIAN  
Rope Company**

Auburn, "The Cordage City," New York



Make light  
of any load with

## ELECTROLIFT

WORM-DRIVE HOISTS

Safe . . . sure . . . swift . . . ElectroLift worm-drive hoists have a place in every manufacturing plant, large or small. Ranging from 1/4 to 10 tons in capacity, these units feature:

- Safe, sure braking and quiet, durable worm-gear drive.
- Totally enclosed gearing with ac or dc motor drive.
- Compact design for operation in close headroom.
- Quality construction and material for long, trouble-free performance.

For details on speeds, capacities, models and operation, consult the classified directory for the ElectroLift representative nearest you.

7990



204 Sargeant Avenue

Clifton, N. J.

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**AT LAST!**

## AN AUTOMATIC BATTERY RECHARGER!



**LaMarche Recharger**

- Increases Battery Life
- Lowers Maintenance Cost
- Saves Space
- No Moving Parts —

**IT'S FULLY AUTOMATIC!**

A completely new concept in battery recharging, developed by the pioneer of Silicon self-regulating battery chargers. Units can be mounted on wall, floor, or truck.

Over 70 standard models to choose from. More than 18,000 units in use today!

Guaranteed for one full year by:

**LaMarche Mfg. Co., Inc.**

3955 25th Ave. Schiller Park, Ill.

Gladstone 678-6855

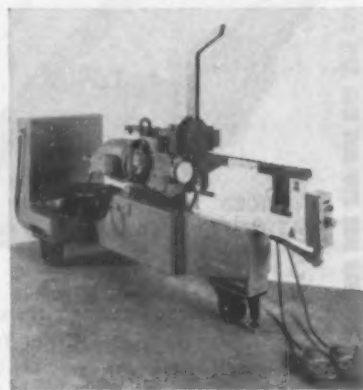
## NEW PRODUCTS

3-ton capacity, rises to 58 in. It stops at any point to align with truck bed. Operator may ride with the load or stand aside. Platform descends into shallow pit flush with the floor.—Globe Hoist Co.

Circle 216 on Reader Service Card

### Semi-Automatic Strapping Machine

Lower chute of M20L steel strapper fits into narrow slot between sections of



conveyor, making supplementary table or rollers unnecessary. Machine has fast

feed, husky construction, unlimited strap take-up, suits high-production packaging lines. Operator positions package, steps on feed switch, inserts strap in lower chute, then steps on cycle switch to tension and seal strap. Standard chute lengths are 18, 24, and 30 in. Vertical strap guides clear packages 15, 21, or 27 in. high. Tensions adjustable, up to 1,500 lb. A 3-h.p. 1,800 r.p.m. 3-phase 60-cycle motor powers the machine. Accessories include wheels and floor jacks, pre-loading strap dispenser for loading strap without interrupting production, safety switches which stop machine when it is out of strap or seals.—Signode Steel Strapping Co.

Circle 217 on Reader Service Card

### Reusable Packing



Pack-Tin expanded plastic foam approved by the military. Firmly immobilizes irregular shapes of any size. Won't rust,

## Tests prove MACHINE CUT STENCILS ARE BEST FOR ADDRESS MARKING



You can cut a stencil in 1/2 minute on a Diagraph-Bradley Stencil Machine.

D-B machine cut stencils will give you permanent, more readable addresses for less cost than any known method of address marking and assures maximum safety from shipping loss.

All D-B Machines are built to meet Gov. Spec. GG-S-747.

## AND ROL-IT-ON IS BEST FOR STENCILING

Rol-It-On High Speed "Roller Process" Stencil System has revolutionized stenciling and address marking. Economical because Rol-It-On ink goes 4 times as far as brush stenciling.

No wear and tear on stencils.

Common carriers prefer and recommend stencil addressing.

Military standards specify stencil addressing.



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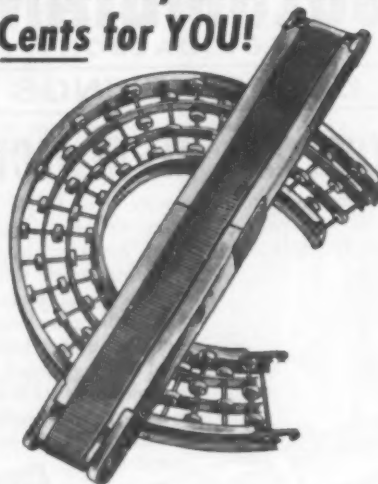
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DISTRIBUTORS IN ALL PRINCIPAL CITIES



## A HYTROL System can make real Cents for YOU!



LOOK AT IT EITHER WAY — Hytrol Conveyors offer common sense solutions to your materials handling problems . . . save you extra cents with every load moved. Portable or permanent models and complete systems. Quality-built for top efficiency and long, dependable service. Authorized dealers in all principal cities.

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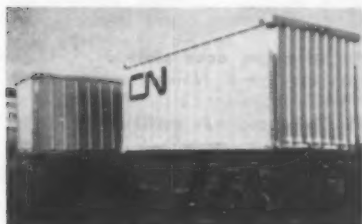
Circle 34 on Reader Service Card

resists abrasion. Closed cell construction, light weight, buoyant, comes in colors. Not affected by pressure, vacuum, most chemicals, acceleration, etc.—Pac-Tron Inc.

Circle 133 on Reader Service Card

### Containerization with stilts

Cargo container is easily separated from truck chassis for effective containerization. Demountable body can be secured to



rail flatcars without wheels and chassis (top photo), or hauled with wheels like a conventional semi trailer. User may leave box behind without special handling gear simply by lowering retractable stilts and driving trailer chassis out from under it (bottom photo). Steel rocker beam makes transferring easy. The container may be any size or shape to suit your needs, even tank for liquids. — Steadman Industries Ltd.

Circle 134 on Reader Service Card

## PRIME-MOVER PALLET TRUCK

P-43—4500 lbs.  
P-25—2500 lbs.

represents the latest engineering design—most efficient production techniques—strongest modern materials. Fewer and stronger parts mean longer, trouble-free, dependable service and performance.

The sealed hydraulic system is precision machined with ground finishes to maintain positive, leak-proof operations. All wear points are cast and machined rather than formed or stamped. Up-dated and made to traditional PRIME-MOVER high standards. Made in Muscatine, Iowa, U.S.A. by the PRIME-MOVER CO.



**\$359**

MODEL P-25—2500 lbs.

AT INDUSTRIAL TRUCK DISTRIBUTORS

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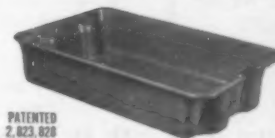
August/September 1961

Circle 41 on Reader Service Card

**new**

*Versatile*

**22 x 14 x 5**



PATENTED  
2,823,828  
2,823,829



**Stack-n-Nest®  
TOTE PAN**

This new Lewis Stack-n-Nest tote pan has been designed to work in conjunction with the popular 22 x 14 x 8 size. Pans will interstack and inter-nest. Covers and dollies can also be utilized as shown.

**22 x 14 COVER**

**22 x 14 x 5 PAN**

**22 x 14 x 8 PAN**

**22 x 14 DOLLY**

Molded in one-piece of Fiberglass reinforced polyester, these pans stack and nest within their own dimension, without mechanical gadgets. Can't rust, rot, corrode... exceptionally strong. Available in 9 sizes. Covers and dollies for several sizes available.

SHIPMENT WITHIN 24 HOURS FROM RECEIPT OF ORDER

**G.B. Lewis COMPANY**

Write today for illustrated brochure and prices.

708 Montgomery Street, Watertown, Wisconsin

**Esterbrook "Super" Marker never runs dry...it's refillable!**

Two ways refillable: Use Esterbrook Refill Cartridge—only 50¢... or refill with Esterbrook Flo-master Refill Ink (20-refill can), only 60¢. 8 bright colors. Writes on anything! Only 89¢ each. Esterbrook's "Regular" Marker—only 49¢.

**ESTERBROOK**  
CAMDEN 1, NEW JERSEY



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# LITERATURE IN ADS

*For information on any item listed here,  
simply circle the number at the beginning  
of the item on the Reader Service Card.*

**1: Lift truck** . . . has worked 17,500 hours without engine overhaul for one user. Other benefits and advantages.—*Allis-Chalmers*.

**2: Tubular steel hand trucks** . . . fully warranted, light weight, job engineered.—*American Pulley Co.*

**6: Narrow aisle truck** . . . sets a new standard for driving ease, serviceability, and lower operating costs.—*Automatic Transportation Co.*

**8: Atlantic freight rates** . . . and services fully explained in literature from *British Overseas Airways Corporation*.

**9: LP-Gas systems** . . . in kit form ready to install.—*Beam Products Mfg. Co.*

**10: Safe operating hints** . . . for fork truck drivers.—*Baker Industrial Trucks*.

**11: High-lift stacking truck** . . . short turning radius; triangle-type 3-wheel floor contact.—*Barrett-Cravens Co.*

**12: Yardmaster truck** . . . lifts from 64 to 160 inches. Telescopic mast for easy entry and exit.—*Big Joe Mfg. Co.*

**13: Collapsible pallet boxes** . . . handles up to 5,000 lbs.—*Bigelow-Gravey Lumber Co.*

**14: Casters** . . . a full line of industrial and institutional types.—*Bond Foundry & Machine Co.*

**15: Hand trucks, pallets, and ramps** . . . *Brooks & Perkins Inc.*

**16: Roller & wheel conveyors** . . . light, medium, and heavy-duty in stock.—*E. W. Buschman Co.*

**17: Pallet trucks** . . . exclusive entry device eliminates sliding and skidding.—*The Colson Corp.*

**18: Nylon-Dacron slings** . . . with inner threads colored to show through when outer webbing is cut or frayed.—*Columbian Rope Co.*

**19: Short and long haul truck service** . . . *Consolidated Freightways*.

**20: Portable elevator** . . . lifts half ton loads safely, efficiently. Works in narrow aisles.—*Crown Controls Co. Inc.*

**21: Mobile yard ramps** . . . the dock that goes to the job.—*Copperloy Corp.*

**22: Air freight delivery** . . . of goods provides access to wider markets, helps control inventories, and protects against sudden market declines.—*Delta Air Lines*.

**23: Machine cut stencils** . . . give permanent, more readable addresses for less cost.—*Diagraph-Bradley Industries Inc.*

**24: Dock bumpers** . . . guaranteed for five years; absorb 81% of impact.—*Durable Mat Co.*

**25: Work-drive hoists** . . . 1/4 to 10 ton capacity. Compact design for operation in close headroom.—*Electrolift Inc.*

**26: Super marking pen** . . . never runs dry; is refillable.—*Esterbrook Pen Co.*

**27: Paperwork made easier** . . . with clip/drawer. It's a clipboard, portable desk, file drawer.—*Evans Specialty Co. Inc.*

**28: Bag closing equipment** . . . for all textile or paper bags.—*Dave Fischbein Co.*

**29: Expert handling** . . . of shipments from origin to destination by experienced crews.—*Fernstrom Storage and Van Co.*

**30: Safety knives** . . . box openers, carton staple removers, twine cutters.—*Flash Mfg. Co.*

**31: Label gluer** . . . for use with ungummed labels on cans, bottles, cartons.—*Glue-Fast Equipment Co. Inc.*

**32: Neothane truck tires** . . . hold 2 to 4 times the load, 4 times longer than conventional tires.—*Goodyear*.

**33: Racks, railings, work platforms** . . . built with Nu-Rail and Speed-Rail slip-on fittings.—*Hollaender Mfg. Co.*

**34: Conveyors** . . . roller, belt, and wheel.—*Hytrol Conveyor Co.*

**35: Padded shipping bags** . . . provide moisture-resistance, cushioning, and insulation. Tear strip for easy opening.—*Jiffy Mfg. Co.*

**37: Dock planning booklet** . . . about dock safety, modernizing, levelation data, design hints.—*Kelley Co. Inc.*

**38: 2nd International cargo handling exposition** . . . September 6, 7, and 8, New York City.—*Kings Point Cargo Handling Exposition, Inc.*

**39: Automatic battery recharger** . . . guaranteed one year; no moving parts.—*LaMarche Mfg. Co. Inc.*

**40: Aluminum dock plate** . . . 12,000 lbs. capacity.—*F. H. Langenkamp Co.*

**41: Tote pans** . . . stacking and nesting; can't rust or corrode; 9 sizes.—*G. B. Lewis Co.*

**42: Walkie trucks** . . . for every handling need.—*Lewis-Shepard Products Inc.*

**43: A truck for every purpose** . . . and material is offered by—*Lift Trucks, Inc.*

**44: Aluminum truck body** . . . can cut costs 15%; pay for itself with 3-year savings.—*Lyncoach & Truck Co. Inc.*

**45: Keep cargo in place** . . . in trucks with spring-loaded bar. Speeds loading and unloading; reduces damage.—*Load-Holder Cargo Stabilizing Devices, Inc.*

**49: How to choose the right dock board** . . . is subject of literature from—*Magline Inc.*

**50: Magnesium dockboards** . . . with one-piece extruded safety curbs.—*Magnesium Co. of America*.

**51: Lift truck scale** . . . eliminates trips to the scale and prevents overloading.—*Martin-Decker Corp.*

**53: Drum cradle truck** . . . carries, rotates, and dispenses. Side opening for drums with side draincocks.—*Morse Mfg. Co.*

**54: Walkie pallet trucks** . . . built to handle more loads at less cost.—*The Moto-Truc Co.*

**55: Speedloader container handling system** . . . for all forms of surface transportation is compatible with all methods of present handling.—*National Castings Co.*

**56: Truck leasing** . . . supplies everything but the driver.—*National Truck Leasing System*.

**57: From teacups to transformers** . . . there's a NY Central car to carry anything you ship.—*New York Central System*.

**58: Floor trucks** . . . made of aluminum alloy handles heavy loads but is lightweight.—*Nutting Truck & Caster Co.*

**59: Cargo planes . . .** world's largest fleet; equipped for mechanized loading for world-wide service.—*Pan-American World Airways.*

**60: Pallet truck . . .** has fewer and stronger parts for longer, trouble-free, dependable service.—*Prime-Mover Co.*

**61: Narrow aisle trucks . . .** with reach forks can operate in 6-ft. aisles.—*The Raymond Corp.*

**62: Shipping labels . . .** can be made up at the same time as your invoice, order, b/l, etc.—*Sten-C-Lab Inc.*

**63: Recording device . . .** for lift trucks, switch engines, cars, trucks, etc. shows operating and idle time.—*The Service Recorder Co.*

**64: Steel strapping feeder . . .** quickly and effortlessly power feeds strapping over and around large packages or bundles.—*Stanley Steel Strapping.*

**65: Bucket elevators . . .** engineered and designed to meet specific needs in your plant; capacities to 3,750 cu. ft. per hr.—*Universal Hoist Co.*

**66: Label printing machine . . .** converts from rubber plate printing to stencil printing in less than a minute.—*Weber Marking Systems.*

**67: Conveyor automation between floors . . .** 1, 2, or 3 levels with minimum remodeling.—*West Bend Equipment Corp.*

**68: Wire rope spray lubricant . . .** protects wire rope, chain, springs, increases life up to 300%.—*Whitmore Mfg. Co.*

**69: Small parts handling baskets . . .** Wire & Iron Products Inc.

**70: Lo-Lift pallet truck . . .** has leak-proof hydraulic unit, sealed ball bearings, and welded steel frame.—*Hi-Lo Equipment (Canada) Limited.*

**71: Corrugated tote boxes . . .** store flat but can be set up instantly. No stapling or taping required.—*The Paige Co.*

## CLASSIFIED ADVERTISING

Rates: Cost of all ads in this section is \$20 for the first inch and \$15 for each additional inch or fraction. All classified advertising is payable in advance.

### FOR SALE

Jeffrey Traylor vibrating type barrel packer. Used approximately 7 months. Worth \$1400 new. Will accept best offer. Write Box 8161, HANDLING & SHIPPING.

Circle 53 on Reader Service Card

# NOW

**...The Easiest One-Man Drum Moving Ever!**

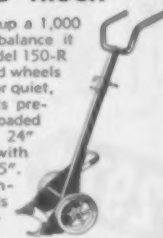
### MORSE Model 55-0 DRUM CRADLE TRUCK

Low-cost and versatile, this cradle truck carries . . . rotates, manually . . . dispenses. Has side opening for drums with side drain cocks. Long wheelbase and retractable caster frame give exceptional stability under load. For 55 and 110 gal. drums. Circle this product for literature and prices.



### MORSE Model 150-R DRUM HAND TRUCK

One man can pick up a 1,000 lb. load . . . and balance it with one finger. Model 150-R features rubber tired wheels with ball bearings for quiet, easy rolling. Permits precise positioning of loaded drums. For drums 24" to 45" high and with diameters from 15". Sturdy steel construction. Circle this product for literature and prices.



Clip this ad to your letterhead



**MORSE MANUFACTURING CO., INC.**

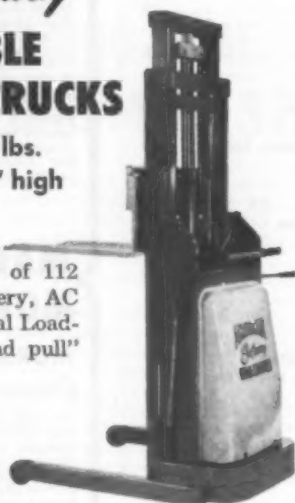
780 West Haverhill Street, East Syracuse, N. Y.

## AP Safetyway PORTABLE ELEVATING TRUCKS

**Raises 2000 lbs.  
Up To 10' 10" high**

A Full Range of 112 Models—Manual, Battery, AC or Air Powered. Optional Load-Jockey takes "push and pull" out of moving loads.

from **\$190<sup>00</sup>**  
to **\$990<sup>00</sup>**



Call your local AMERICAN Distributor for prompt delivery and sound recommendations.



**THE AMERICAN PULLEY COMPANY**  
4200 WISSAHICKON AVENUE • PHILADELPHIA 29, PA.  
A division of VAN NORMAN INDUSTRIES INC.



Circle 5 on Reader Service Card

## Reduce Materials Handling Costs! USE



**\*MIRACLE\*  
TOTE BOXES**

### FOR STORING AND HANDLING

- **SAVE MONEY**—cost only a fraction of rigid totes; covers included.
- **SAVE TIME**—set up INSTANTLY and AUTOMATICALLY—no stapling or taping required.
- **SAVE SPACE**—store flat when empty; stack 'em to the ceiling when full.
- **RUGGED!**—Double-walled, double-floored, double-cornered corrugated construction gives amazing strength and durability.

Send TODAY for new MIRACLE TOTE BOX Brochure

## ★ The PAIGE Company ★

95 MADISON AVE., NEW YORK 16, N. Y.

HS-861

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FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

Circle 71 on Reader Service Card

# 54\* by Crown VALUE PRICED!



Lifts loads up to  
half ton safely,  
efficiently. Operates  
in narrow aisles.

MODEL H-57



1900 Lb. capacity  
includes batteries  
and built-in charger.  
Lowest price power  
lift.

MODEL B-57



Compact, power  
propelled, power lift.  
Includes batteries  
and built-in charger.

MODEL W-57

\*Send for free catalog of 54 Models.



MATERIAL HANDLING DIVISION  
Circle 20 on Reader Service Card

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Circle 67 on Reader Service Card

## NEW ... for

### Floor-to-Floor Production Flow ...

"Weld-Bilt"  
PRODUCTS

## "VERTICAL TRANSPORTATION"

Here's conveyor automation between floors — one, two, or three floor levels — with minimum remodeling. Automatic loading, unloading, lifting or lowering to match conveyor speed. Controls, brakes, switches, platforms — all engineered to your needs.

Write for profitable suggestions on your own floor-to-floor conveyerizing with Weld-Bilt "Vertical Transportation"

**WEST BEND EQUIPMENT CORP.**  
MATERIALS HANDLING ENGINEERS

400 Water Street • West Bend, Wisconsin

## MORSE Model 80 Barrel-Lift

Now ... one man can safely handle liquid drum loads from 500 to 1,000 lbs.—raise, rotate, transport, tilt and drain 55 gal. drums. The mess, expense and hazards of spills, leaks, overflow and drum damage are eliminated. Sturdy, all steel welded construction ... rubber tired wheels with ball bearings and rubber tired rear caster.



## MAN • MINUTE • MONEY SAVERS!

## MORSE Model 85 Drum-Karrier

Provides complete control. Easy one-man operation. Attaches to any monorail hoist ... for all double chine drums 23" in diameter, 36" in height. Positive tilt locks hold drum in vertical position for carrying ... provide control of tilt for mixing or dispensing. All steel welded construction.



Clip this ad to your letterhead



**MORSE  
MANUFACTURING CO., INC.**

West Main Street, East Syracuse, N. Y.

Circle 52 on Reader Service Card

HANDLING & SHIPPING

**Handling & Shipping**

**Reader Service Card**

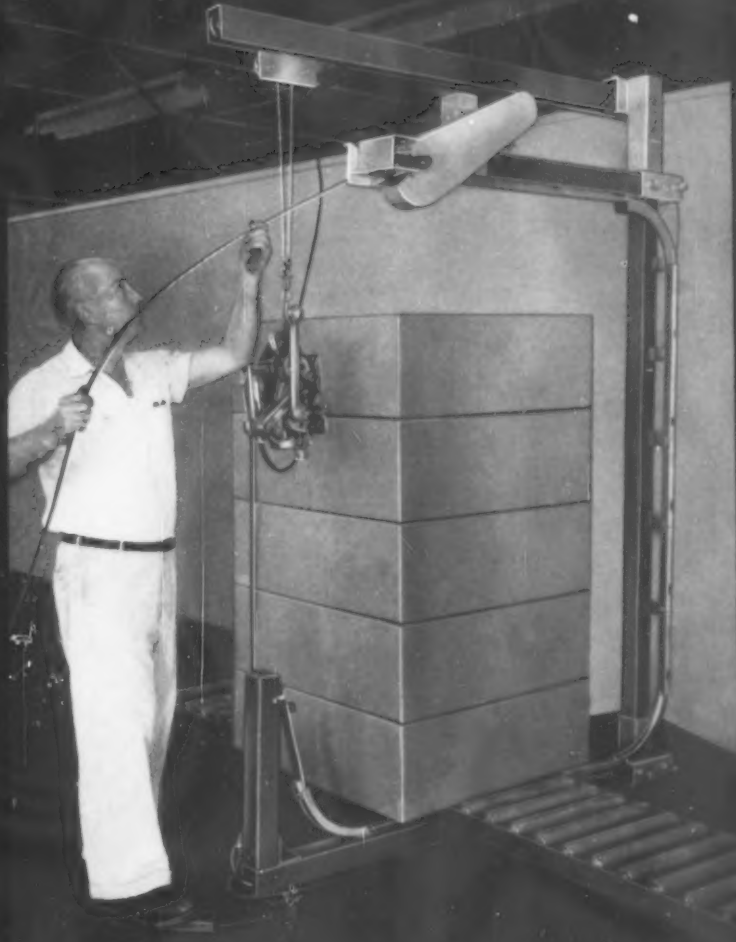
# **Handling & Shipping**

**Reader Service Card**



**STANLEY**

Model SSF  
Strap  
Feeder



## SAVE PACKAGING TIME, MONEY and MAN-HOURS with the NEW ONE-MAN STANLEY SSF STRAP FEEDER!

The new Stanley Model SSF Strap Feeder quickly and effortlessly power feeds steel strapping over and around large packages or bundles of every type. This eliminates the need for a second operator at the back and makes it possible for one man to feed strap around a 30" x 30" x 30" carton, tension the strapping and seal—all in less than 15 seconds!

Using the Stanley Strap Feeder, the operator has only to insert the end of the steel strapping into the feed unit and press the foot switch. The strapping is then fed around the package (at a rate of 4" per second) to a limit switch that cuts the power and leaves the strap within easy no-stoop reach of the operator. At the same time, strapping is automatically ejected from the feeding chute, ready for quick, easy tensioning, sealing and cutting with the semi-automatic Stanley "Ace" Steel Strapping tool or the Stanley Electric Skid Magazine tool.

The Model SSF provides simple adjustment for any carton, crate, box, bundle or unit load up to 72" high and 60" wide and is supplied in 3 models, with or without tool mount, for any conveyor height—6" to 17½", 18" to 29", or 29" to 36" off the floor. Strap sizes from ⅜" x .010 to ¾" x .035 can be handled. Installation—as part of conveyor line or as a supplemental strapping station—is simple; with no complicated wiring required. Strapping can be dispensed from a Stanley Overhead Reel, NR Portable, Vertical Reel Stand or SSD Floor Type Horizontal Strap Dispenser. MAIL COUPON TODAY for information—see how elimination of hand feeding can speed your strapping operations and cut your packaging costs!

STANLEY

STANLEY STEEL STRAPPING SYSTEM

AMERICA BUILDS BETTER AND LIVES BETTER WITH STANLEY

**STANLEY**

REG. U. S. PAT. OFF.

This famous trademark distinguishes over 20,000 quality products of The Stanley Works, New Britain, Conn.—hand tools • power tools • builders hardware • industrial hardware • drapery hardware • automatic door controls • aluminum windows • stampings • springs • coatings • strip steel • steel strapping—made in 24 plants in the United States, Canada, England and Germany.

IN CANADA: STANLEY STEEL STRAPPING,  
DIVISION OF STANLEY STEEL COMPANY, LIMITED, HAMILTON, ONTARIO

Circle 64 on Reader Service Card

### STANLEY STEEL STRAPPING

Division of The Stanley Works

Dept. H, 20 Corbin Avenue, New Britain, Connecticut

☐ Please send me illustrated material giving complete information on the new Stanley Model SSF Strap Feeder.

☐ Send the Strapping Application File on how others use The Stanley Steel Strapping System for:

- |   |                                      |                                     |                                  |
|---|--------------------------------------|-------------------------------------|----------------------------------|
| <input type="checkbox"/> reinforcing  | <input type="checkbox"/> palletizing | <input type="checkbox"/> baling     | <input type="checkbox"/> closure |
| <input type="checkbox"/> tying  | <input type="checkbox"/> bundling    | <input type="checkbox"/> carloading |                                  |
| <input type="checkbox"/> Have Stanley man call to discuss latest steel strapping methods. |                                      |                                     |                                  |

Name \_\_\_\_\_ Position \_\_\_\_\_

Company \_\_\_\_\_

Company Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**Material Handling Equipment Marketers,  
Take Advantage Of These Big Selling Benefits:**

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When you advertise in **HANDLING & SHIPPING** you get 75,000 circulation — the only true mass market coverage in the material handling, packaging and shipping field, the *broadest coverage* you can buy. You reach 64,000 operating managers who are hand-picked for their buying/specifying authority. Franchise-Paid and controlled circulation helps identify the important decision-makers in these mass market companies.

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**Published  
Monthly  
BEGINNING  
JANUARY 1962**

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AN INDUSTRIAL PUBLISHING CORPORATION MAGAZINE



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gets magazines  
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